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ILLUSTRATIONS.

Ground Plans of Clun and Hopton Castles 1049
New Cumberland Union Bank, Haltwhistle.—Mr. D. Birkett, Architect 1054
Monument of Bishop Rodolph von Scherenberg, Würzburg Cathedral: A.D. 1495 1055

CONTENTS.

Ben Jonson's London 1049
Wanted, a Concert-Room for London 1045
What is the Place of the "Dilettanti" in relation to Art 1046
The Castle and Barony of Clun: Hopton Castle 1047
Building in Edinburgh 1050
The Late Mr. Raphael Brandon, and his Works 1051
International Congress of Architects 1052
St. John's Church, Upper Holloway: Bracing Walls 1052
Large Block of Shop and Office Buildings in Finsbury 1052
New Street in Kensington 1052
Competitions 1053
The Present State of Ballooning 1057
Granite Buildings, Aberdeen and London 1058
Archaic Greek Art 1059
Wanderings and Questionings in Architecture and Art; Sentiments for Windows 1059
Recent Discoveries: St. Alban's 1060
A Scheme of Cathedral Restoration 1060
Trees in Kensington Gardens 1061
Plaster of Paris 1061
An Art Gallery for Warrington: Honours to a Sculptor 1061
The Cyfarthfa Ironworks 1061
Chime Clock and Carillons, Manchester Town-hall 1062
Manufacture of Iron and Steel by the Direct Process 1062
The High-Art Lover and his Artist: Henning's Models of the "Elgin Marbles" 1062
Architect's Claim for Plans: Stewart v. Newbury 1062
Cases under the Metropolitan Building Act: What are Repairs? 1062
Treatment of Builders 1062
Dictionary of Architecture 1063
The Masons' Strike 1063
Professional Queries 1063
New Waterworks 1063
Coated Iron Pipes for Water 1063
Church-Building News 1064
Miscellanea 1064

Ben Jonson's London.

ENGLISH writers of old gloried in their connexion with the great city of London, and they could not have understood the feelings of those who in later times tried to make the Londoner ashamed of his birthright by styling him a Cockney. From among these lovers of the capital Ben Jonson stands out most prominently, and his works are full of allusions to London, both within and without the walls, such as no other writer has equalled. We propose to make a few notes on some of these references, first treating of those places with which the poet was himself connected.

It is not certainly known where Jonson was born, but his earliest years were spent in the parish of St. Martin, of the rural character of which we are constantly reminded by the affix "in the fields." About this time there were only one hundred persons in the parish who were liable to be rated to the poor, and the chief of these lived in the Strand, by the waterside. The first church was built in the reign of Henry VIII., and amongst the early entries in the registers may be found the record of the baptism of Francis Bacon, who first saw the light at York House, afterwards the residence of the Duke of Buckingham, who rebuilt it and set up the Water-gate of Inigo Jones, which still stands at the end of Buckingham-street. Fuller traced Jonson as a little child to Hartshorne-lane, Charing-cross, which was also called Christopher-alley. In 1760 the houses were pulled down and Northumberland-street was built on the site. Within a century of the time when one hundred persons only were rated to the poor, the parish of St. Martin had become "the greatest cure in England," with a population of over forty thousand. In Jonson's day the district was growing fast, and he introduced into "Bartholomew Fair" a notice of that nest of alleys that grew up under the shadow of the tower of the church, and was only destroyed in the present century. Justice Overdo says, "Look into any angle of the town, the Streights or the Bermudas, where the quarrelling lesson is read, and how do they entertain the time, but with bottle, ale, and tobacco?" The old name of Bermudas was at a later period changed for that of the Caribbee Islands, which was again corrupted to Cribbee Islands, with a very evident allusion to the predominant occupation of the inhabitants. Through the help of a friend the boy Jonson was placed upon the foundation of Westminster School, and here he obtained the inestimable advantage of an education under the eye of the learned Camden. The poet cherished through life a sincere respect for his schoolmaster,—

> "To whom I owe
> All that I am in arts, all that I know."

On leaving the "publique Schoole for Grammar, Rethoricke, Poetrie, and for the Latin and Greek languages," founded by Queen Elizabeth, Jonson had nothing to depend upon except his learning, and that not being a very marketable commodity he took to bricklaying to obtain a living. According to a tradition preserved by Aubrey, he was engaged upon the garden-wall of Lincoln's Inn, and worked there with a trowel in his hand and a book in his pocket; it is further reported that he was heard to repeat "Greek verses out of Homer," and that a bencher discoursing with him gave him an exhibition at Trinity College, Cambridge. It cannot, however, be proved that he went to the University at all, and he told Drummond of Hawthornden, that he was "Master of Arts in both the Universities by their favour, not his studie." Although we cannot be certain as to the places where Jonson was employed, there can be no doubt that for a time he worked as a bricklayer, and builders may well be proud to claim so great a poet as one of themselves. His early occupation is frequently alluded to by his contemporaries, and in Dekker's "Satiromastix," we read of the "bricklayer in a play," the "mortar-treader," and Ovid's "Mortarmorphosist." This manual work was not to his mind, and to escape from it he turned soldier, and joined the army in the Low Countries. On his return from the Continental wars, he fought a duel with Gabriel Spenser, the actor, in Hoxton, and killed his antagonist. This place, which is now almost in the heart of London, was in Jonson's time a country place, cut off from the City by the swampy ground of Moorfields. Some of the scenes of "Every Man in his Humour" are placed at Hoxton, which was then, according to Stow, "a large street, with houses on both sides."

During Jonson's earliest struggles, and after he had become famous, he worked for Philip Henslow, the owner of the Rose and Fortune Theatres, and of the bears at Paris Garden. At the latter place, which was sometimes used as a theatre, he acted the character of *Zulziman*, in some lost play,—that is, if we are to trust Dekker's "Satiromastix." With most of the playhouses on the Bankside Jonson is intimately connected. His "Sejanus" was acted at the Globe in 1603, and his "Bartholomew Fair" at the Hope in 1614. In his "Execration upon Vulcan" he describes the burning of the Globe, which he styles "the glory of the Bank."

We know little of Ben Jonson's habitations farther than this, that he lived at different times in the City, in St. Martin's parish, and at Westminster. Mr. Payne Collier supposes that he was living at Cripplegate in 1599, and in Bishopsgate in 1600, but we have it under his own hand, in the "Dedication to the Fox," that in February, 1607-8, he was living in Blackfriars. In 1628, he was in Westminster, and frequenting Cotton House, the residence of his friend Sir Robert Cotton, situated at the west end of Westminster Hall, and in 1637 his death took place, according to Aubrey, "in the house under which you passe as you goe out of the churchyard into the old palace" of Westminster.

The poet's love of good liquor and of social intercourse made him a frequenter of inns. His history is therefore more mixed up with them than with the several residences. His acquaintance with the two rival taverns of Cheapside—the Mermaid and the Mitre—must have commenced early, because the names of both occur in the first quarto edition of "Every Man in his Humour" (1601); in the later folio edition, the Mitre is changed to the Star, and the Mermaid to the Windmill. The renown of the Mermaid is world-wide, for here it was that Sir Walter Raleigh founded the literary club, which included among its members Shakspeare, Jonson, Beaumont, Fletcher, Cotton, Carew, Donne, and Selden. With such men as these to talk, who can suppose that Beaumont's well-known lines are exaggerated:—

> "What things have we seen
> Done at the Mermaid! heard words that have been
> So nimble, and so full of subtle flame,
> As if that every one from whom they came
> Had mean'd to put his whole wit in a jest."

The Mitre was a rival house, and some authors tried to write it up at the expense of the Mermaid. Thus Middleton has the following dialogue in his comedy, "Your Five Gallants" (1608):—

> "*Goldstone.* Where sup we, gallants?
> *Pursenet.* At Mermaid.
> *Gold.* Sup there who list, I have forsworne the house.
> *Pur.* Faith! I'm indifferent.
> *Bungler.* So are we, gentlemen.
> *Pur.* Name the place, Master Goldstone.
> *Gold.* Why, the Mitre, in my mind, for neat attendance, diligent boys, and—Push! excels it far.
> *All.* Agreed; the Mitre then."

One of the scenes in "Every Man out of his Humour" is a room at the Mitre.

The Windmill in the Old Jewry, which occupies so prominent a position in the revised edition of "Every Man in his Humour," was a house with a long history. It was first of all a synagogue for the Jews of the neighbourhood; then it was granted by Henry III. to the prior and brethren of an order of friars called the Fratres de Sacca; and in 1439 it was occupied by Lord Mayor Robert Large. In 1492, Hugh Clopton, the worthy who built the fine old Clopton Bridge at Stratford-upon-Avon, kept his mayoralty in the mansion, which a hundred years afterwards was turned into a tavern. In the "Alchemist" (1610) *Face* describes *Dapper* to *Doll Common* as a lawyer's clerk he had met on the preceding night "in Holborn, at the Dagger," which was then a low ordinary and gaming-house. There was a more famous house with the sign of the Dagger, in Foster-lane, Cheap-

side, which was famous for its pies, then known as "Dagger-pies." The Devil Tavern, in Fleet-street, within Temple Bar, is peculiarly associated with Jonson:—

"Thence to the Devil,—
Thus to the place where Jonson sat we climb,
Leaning on the same rail that guided him."*

At the Apollo Club, which met in the great room he ruled with undisputed sway. The host was Simon Wadlow, called by the poet, "Old Sym, the King of Skinkers," and the old song with the burden of "Old Simon, the king," was adapted to suit him. Aubrey reports that his uncle Danvers said that "Ben Jonson, to be near the Devil Tavern, in King James's time, lived without Temple Bar, at a comb-maker's shop, about the Elephant and Castle." The Swan at Charing Cross was one of the houses frequented by Jonson, who has left us the name of the drawer. Aubrey tells a tale respecting this man which was probably true. At some Court conviviality that followed the marriage of James I.'s daughter Elizabeth to the Palgrave of the Rhine, Jonson was required to say an extemporaneous grace, which he did in these words:—

"Our king and queen, the Lord God blesse!
The palzgrave and the Lady Besse;
And God blesse every living thing
That lives and breathes, and loves the king.

God b'esse the Councill of estate,
And Buckingham the fortunate.
God blesse them all and keep them safe,
And God blesse me, and God blesse Rafe."

The king was inquisitive to know who this Ralph was, and Ben told him he was the drawer who drew good canary at the Swan. Aubrey adds that the king gave the poet 100*l.* for this drollery, but it is by no means certain that he received the money. In Jonson's later days, when he resided in Westminster, his infirmities prevented him from getting so far as Fleet-street to the Devil, and the Dog in King-street became the rendezvous of the jovial spirits who looked up to Ben as their chief. Here, surrounded by his adopted sons, he ruled the roast, as he had formerly done at the more eastern tavern. Herrick, in his address to Jonson, mentions also the "lyric feasts" at the Sun and the Triple Tun. The Sun tavern, also in King-street, was of considerable antiquity, and is referred to in the steward's account of the expenses of Sir John Howard in 1464.

With all these places Jonson was personally connected, but there is scarcely a spot in old London that is not in some way referred to in his works. The two centres of town—St. Paul's and the Exchange—are pictured for us in all their salient points. Captain Bobadill was a Paul's man, or lounger in the nave of the old cathedral. At this time the appearance of the chief church of London must have greatly resembled that of the Temple at Jerusalem before Christ thrust out the money-changers and those that sold doves. In the English place of worship gallants walked about, as all readers know, to show their fashionable clothes, merchants with their hats on transacted business in the aisles; lawyers received their clients at the various pillars. The Royal Exchange was another favourite lounge that almost rivalled the attractions of St. Paul's. At the beginning of the seventeenth century a formidable competitor arose in the New Exchange or Britain's Burse in the Strand. In 1608 Robert Cecil, Earl of Salisbury, erected a handsome stone building on the stables attached to Durham House. It contained two long galleries, one above the other, in which were arranged all kinds of objects for sale. The ground-floor was occupied by shops, and was called "the lower walk." London was then too small for two such similar resorts, and the citizens were so dissatisfied with their young rival that they induced the Lord Mayor to petition Lord Salisbury to shut up the New Exchange, but the only answer to be got from the Lord Treasurer was "that Westminster being the place where he was born, and of his abode, he sees not but that he may seek to benefit and beautify it by all means he can." Jonson makes Lafoole in "The Silent Woman," take a lodging in the Strand in order "to watch when ladies are gone to the china-houses or the Exchange, that he may meet them by chance and give them presents."

The outdoor life of his time, with the men and women who frequented the streets, is brought vividly before our eyes in Jonson's plays. The useful and the useless members of society pass across his stage. The water-carriers who congregated around the conduits are represented by Cob in "Every Man in his Humour." Before Sir Hugh Myddelton made the New River, and brought it to men's houses, all the water that was wanted had to be fetched from the conduits. The men who supplied the town drew off the water into large wooden tankards, broad at the bottom, but narrow at the top, which held about three gallons. This vessel was borne upon the shoulder, and to keep the carrier dry two towels were fastened over him, one to fall in front, and the other to cover his back. One of the first buildings in London to be supplied with water from the New River was the old Bethlem Hospital, that stood in Bishopsgate-street, near St. Botolph's Church. This was in 1626; but as late 1711 it had not become general to lay on the water into the houses, for in Tempest's "Cries of London" there is a plate of a man with two tubs suspended from his shoulders, with the inscription, "Any New River Water, Water here?"

London has always been famous for its cries, and one of Jonson's epigrams is on the new cry:—

"Ere 'Cherries ripe!' and 'Strawberries!' be gone,
Unto the cries of London I'll add one.
'Ripe Statesmen, ripe!' they grow in every street;
At six-and-twenty, ripe."

In the play of "Bartholomew Fair" mention is made of the sausages, which, with roast pig, formed the favourite article of refreshment for the frequenters of the fair. Sausages were sold also in the streets, and these lines were sung by the sellers:—

"Who buys my sausages? Sausages fine
I ha' fine sausages of the best,
As good they are as e'er were eat,
If they be finely drest.
Come, mistris, buy this daintie pound,
About a capon roast them round."

The narrowness of the old London streets is strikingly shown in "The Devil is an Ass," where the lady and her lover speak gentle nothings to each other from the windows of two contiguous buildings. All the fashions of his time,—the rapier-fighting of the gallants, the smoking madness of all classes at a time when tobacco was supposed to be a panacea for all the ills of human nature, the custom of garnishing conversation with oaths,—are introduced into the works of Ben Jonson. But if the poet was at home in the streets he was even more at home in the suburbs, which were more distinctly marked off from the City than they are at present. Of the northern suburbs the fullest mention is to be found in "A Tale of a Tub," where we read of Totten Court, Kentish Town, Maribone, Kilborne, Islington, and Belsize, and the fields near Pancras. In "Every Man in his Humour," we find Turnbull mentioned, among other disreputable places, as one of the "skirts of the town." Turnbull, or more properly Turnmill, street, was situated near Clerkenwell-green, and was known as the haunt of ruffians, thieves, and disorderly persons. Justice Shallow boasted to Falstaff "of the wildness of his youth and the feats he had done in Turnbull-street." On the west the suburbs commenced in a part that we now esteem the heart of London. The Oxford-road, that began at the turnpike by St. Giles's, was in the country when Jonson lived, and where Stratford-place now stands was a cottage, among trees and hedges, called the Lord Mayor's Banqueting House. This is alluded to in "The Devil is an Ass,"—

"But got the gentlewoman to go with me
And carry her bedding to a conduit-head,
Hard by the place toward Tyburn which they call
My Lord Mayor's banqueting-house."

Some remains, probably, of this building were discovered not long ago, in the course of some underground works in Oxford-street, as we mentioned at the time.

"Eastward for Ratcliff!" is a cry in the *Alchemist*. Ratcliffe, which Stow remembered as a highway with fair elm trees on each side, in later times became the synonym of all that is dangerous and disreputable in London streets. The musters at Mile-end are mentioned in "Every Man in his Humour." This place was then a common on the great eastern road out of London, frequently used as a rendezvous for the troops. When Henry VIII. chartered the Honourable Artillery Company, he also gave his sanction to another fraternity of archers at Mile-end, the chief of which was honoured with the name of *King Arthur*. The other members were known by the various names of Arthur's Knights, thus Justice Shallow boasts of what he did when he was Sir Dagonet in Arthur's Show. From Mile-end to Bow is no long journey, and the actor Kemp, in describing his remarkable Morrice dance, writes,—"Being past Whitechappel, and having left fair London, multitudes of Londoners left not me; eyther to keepe a custome which many holde, that Mile-end is no walke without a recreation at Stratford Bow with cream and cakes, or else for love they beare toward me, or perhaps to make themselves merry if I should chance (as many thought) to give over my Morrice within a mile of Mile-end." At Stratford-le-Bow was a Benedictine nunnery dedicated to St. Leonard for a prioress and nine nuns. Here it was that Chaucer's Prioress obtained her knowledge of the French language.

"And Frensch she spak ful faire and fetysly,
After the scole of Stratford atte Bowe,
For Frensch of Parys was to hire unknowe."

Jonson parodies this in "The New Inn," where Lord Beaufort speaks,—

"Of Stratford o' the Bow:
For Lillie's Latin is to him unknown."

There were but few suburbs in the south of London, besides Bankside and the adjoining Lambeth Marsh, which bore a very ill name. When London was a walled city, the streets within and the liberties beyond the walls were carefully looked after by the magistrates, so that the disreputable persons were forced to seek shelter in the suburbs. In consequence, the very word obtained an objectionable meaning. Stubbes denounced suburb gardens and garden houses in his "Anatomy of Abuses," and another writer observed, "how happy were cities if they had no suburbs." Chettle, in his "Kind Hart's Dreame," 1592, writes, "the suburbs of the citie are in many places no other but dark dennes for adulterers, theeves, murderers, and every mischief-worker: daily experience before the magistrates confirmes this for truth." Jonson was acknowledged in his own time as a representative Londoner, and when James I. entered London on his accession to the English throne, it was Jonson who was employed to arrange the street entertainments with which he was greeted. When, in 1607, the Merchant Taylors' Company were about to be honoured by a visit from the king, they requested Sir John Swinnerton "to confer with Master Benjamin Jonson, the poet, about a speech to be made to welcome his Majestie, and about music and other invencions which may give lyking and delight; by reason that the Company doubt that their schoolmasters and scholleres be not acquainted with such kinde of entertaynments." In 1616, Alderman Cookayne and the Company of Merchant Adventurers feasted the king. "Dyers, cloth-dressers with their shuttles, and Hamburgians, were presented to the king, and spake such language as Ben Jonson put in their mouths." In 1628 Jonson was rewarded by the appointment of City Chronologer, with a salary of one hundred nobles, but as he did not do any work, the City authorities determined to stop his pay, and in 1631 the Chamberlain was ordered to forbear paying "any more fee or wages" until "some fruits of his labours" were presented to them. A few years before the poet's death, however, the salary was again voted to him, with the arrears, through the influence of King Charles I. Soon after this the life of one of our greatest authors ended in that London which he loved, not far from the spot where he is supposed to have first seen the light.

We have thus rapidly noticed a few of the chief points of interest in the old city of London, at a time when some of the great glories of our literature were living in its streets, and will conclude with the hope that as the London of to-day becomes more worthy in appearance of its long and noble history, the men of the nineteenth century may become as proud of it as those of the seventeenth century were of their London.

* Prior and Montagu's "Hind and Panther Transversed."

Builders' Benevolent Institution.—The thirtieth anniversary dinner of this Institution will take place at Willis's Rooms on the 8th November, Mr. William Higgs, president, in the chair, on which occasion we hope there will be a goodly muster of the friends of the Institution. Although it is now well established, and is doing and has done much good work, we would point out (as we have done in previous years) that the Institution is hardly so liberally supported as it ought to be, considering the magnitude and importance of the trades with which it is identified. Our readers will do well to note this, and better still if they do what they can to augment the income of the Institution.

WANTED, A CONCERT-ROOM FOR LONDON.

The Londoner, *par sang*, is a patient and long-suffering person under inconveniences which would be much more speedily and practically resented in half a dozen at least of the large provincial towns of the kingdom. One may go further, indeed, and say that there is existent a kind of satisfaction, sometimes approaching to pride, in the way things are done in the capital, merely because it is and has for long been the habit of the capital to do thus and thus. It must be this kind of domestic pride in all the arrangements of London *per se* which has induced the inhabitants of what now is, as far as concert-giving goes, one of the most musical of all the capital cities of Europe, to put up for so long and uncomplainingly with one of the worst and most inconvenient rooms to be found anywhere, as the site of the best musical performances, for what are in the main, both socially and æsthetically, the best audiences; to be content to have no one room in the whole of their great and wealthy city which can have any pretension to be called, in regard to comfort, appearance, and acoustic properties, a first-class concert-room.

The deficiency is, perhaps, the more remarkable, when we compare the concert-rooms of London with its opera-houses. The lyric drama could hardly be more satisfactorily housed than at Covent-garden, with the acoustic properties of which also there is little fault to be found; and Drury-lane, though less ambitious in scale and style, is quite passable, when used for the purpose, as to comfort, and in no way inferior to the other house in regard to acoustics; while "Her Majesty's" in the Haymarket (now rebuilt) long enjoyed the fame of being one of the best-planned opera-houses in existence. Now let us look at the principal rooms available and in common use in London for the best musical performances apart from the stage. The ancient institution of oratorio finds its chief home in Exeter Hall, a building which will certainly not be cited as a model of convenient arrangement either in regard to access to the room or comfort when it is attained; still less can it be praised for architectural beauty. Acoustically, however, there is less to be said against it. The architect, whether empirically or by scientific intent, came rather near to what has been said by the best scientific authorities to be the model arrangement for an auditorium in regard to section: the seats rising continuously from the orchestra afford good opportunity for hearing and seeing for all the audience; though, of course, they should by rights take a curve determinable by certain proportions between the elevation whence the sound proceeds and the distance of the auditor, according to the rule laid down by Mr. Scott Russell for finding what he termed the "isacoustic curve." And practically it may be said that not infrequently one hears almost too much at Exeter Hall; in other words, the room is not so long as it might favourably be made in proportion to the size of the orchestra and the power of sound to be obtained from the phalanx of performers. This is a fault, no doubt, on the right side; but we cannot, of course, regard Exeter Hall as in any way a possible centre for London society to draw its music from. It is too far east for that, and labours, besides, under a partially "brimstone and treacle" repute which is sufficient to render its associations distasteful to the modern æsthetic world. It is *par excellence* a place where people go to hear oratorios; and æsthetic London, whether wisely or no, is cool towards this class of performance. The Royal Albert Hall is the other and more recent home of oratorio, and in some points is manifestly superior to Exeter Hall. It is really comfortable and roomy in regard to seating arrangements; it has at least the basis for fine architectural effect in its great spaces and long elliptic lines; and the approaches, considered as the means of getting a number of people into and away from the place without either delay or crushing, are about as good as they could be, so far as concerns mere means of access; though in regard to cloak-rooms and other necessary departments, it may be said that these are not merely deficient, but for all practical purposes non-existent. Acoustically the Albert Hall is, as before observed in these columns, a very remarkable success, considering its size; but this "consideration" is an important one. As a place for the performance of choral and orchestral music on a great scale, there is no reason why the Albert Hall should not have been,—no reason perhaps why it should not now be,—a great success; but this must involve alteration and re-arrangement. The general plan is, of course, wrong to begin with, since it is a purely spectacular plan applied to the purpose of an auditorium, and the seats are arranged as if the attention of the audience was to be concentrated on something in the centre of the apartment, when in fact it is expected to be concentrated on the end of the ellipse. In addition to this initial mistake, the orchestra would require re-planning and re-constructing, in order to accommodate a chorus large enough to produce a really telling effect, and to place them in the most favourable manner for this. As a passing suggestion, it may be noted that the plan of the room as it exists might prove entirely suitable for enabling a large audience to hear an instrumental concert from a band placed in the middle of the Hall, on the principle that was adopted at M. Pasdeloup's Sunday concerts at Paris, though that would necessitate further raising the level of the "arena," or erecting a stage or orchestra upon it.

This, however, would only be a provision for what may be termed "popular concerts" on a great scale, where the object is to find room for as numerous an audience as can have any chance of hearing. But none of those who constitute the more educated class of listeners will ever care to hear high-class instrumental music in so large a place, knowing that the *nuances* of composition and execution have no chance under such circumstances: so that the Albert Hall, remarkable as it is in some ways as a concert-room, cannot fill the gap. When we quit the region of popular concerts, and the somewhat antiquated shrine of oratorio, and turn to the class of performances which really interest the advanced musical public of London, we find that a popular place of amusement, built for general purposes of holiday pleasuring, and with no special regard of any kind to efficiency as a concert-room, forms the site of one of the most important series of concerts that is given. Concerning the Handel Festivals, which perhaps can hardly be spoken of as a series of concerts, being only an occasionally recurrent event on a great scale, and concerning the suitability of the site in which they are held, some remarks were made in this journal in reference to the Festival of this summer (see *Builder*, p. 677, *ante*). But the "Crystal Palace Concerts," given on Saturday afternoons during the autumn and winter, have attained a European celebrity. It is here that the best orchestral playing available in England is to be heard; it is here that important instrumental works by new composers are commonly introduced to an English audience; and on some such occasions all musical London may be found *en route* for Sydenham, by rail or carriage, on a Saturday afternoon, to do honour to some great man or his work. And what is the room in which these worshippings at the shrine of music are held? It is little more than a corner of the big building, divided off by a glazed partition, and having nearly every defect that a concert-room could have. The access to the best part of the room is through tortuous and narrow entrances, where there is always a regular block on getting away. Cloak-room accommodation is non-existent, but this is less felt than elsewhere, as the concerts are not in the evening, and the disposal of wraps and overcoats forms no necessary portion of the ceremonial. The whole of the large floor area is perfectly flat, the very worst section on which to arrange an audience for hearing, and, to make matters worse, a large proportion of it is caverned under galleries, which shut out both light and sound. How bad this flat-floor arrangement is for hearing may be inferred from the fact,—of which the present writer has had ample opportunity of judging,—that the music can be far better heard in the end gallery the whole length of the room from the orchestra than at a point on the floor-level at only one-half the distance. The audience sit on small chairs, packed as closely as they will go; the orchestra is cramped and ill-arranged; the prevalence of glass and iron in the construction tends to impart a degree of harsh and tinny reverberation to the sounds of the louder brass instruments; while the extent to which the music can be heard through the glass partition, outside the sacred area, shows how much of the sound is thrown to waste. The audience on the floor area experience all the inconveniences arising from an apparently utter neglect of ventilation, insomuch that listeners, full of enthusiasm for the music, have been known to complain nevertheless of an irresistible drowsiness, the natural result of the paralysing influence of a vitiated atmosphere. With the exception of this last defect, which ought at once to be seen to and remedied, the deficiencies of the concert-room can hardly be considered as matter for complaint against the managers of the Crystal Palace: the building was not erected for music, and the celebrity attained by the Saturday concerts was almost an accidental and unlooked-for development, arising mainly out of the personal influence and enthusiasm of the last secretary of the company. But the fact remains that one of the most important and high-class series of concerts provided for the inhabitants of and visitors to the capital is given in a room in every respect utterly unsuitable in regard to comfort, planning, and acoustic capabilities; and it says something for the genuine character of the musical partialities of Londoners, that all these drawbacks seem to have little effect on the numbers of the audiences, and none whatever on their interest and attention. Perhaps all these practical drawbacks would hardly have been surmounted but for the prestige which has long and in the main most deservedly attached to the great holiday palace at Sydenham, which we are glad to think has just entered on a probably new lease of life and prosperity after an interval of rather clouded circumstances. Of the concert-room at the Alexandra Palace, intended for concerts of a similar high character (which were for a time given under the late management), we cannot speak from actual experience of the effect of music in it, never having been present at a concert there; but it looks in every way a far better place for such entertainments than the roughly appointed room, or rather fenced-in space at Sydenham, being specially built as a concert-room, and of a shape and proportion which, theoretically at least, seem to promise a very satisfactory music-room. But here the prestige seems to have been wanting, or there were not enough enthusiasts to fill two concert-rooms so far out of town; from whatever cause, the concert-hall at Muswell-hill failed to attract, and the concerts, of this class at least, have dropped.

It remains to see what there is provided in the way of a concert-room for the musical section of London society within its own special topographical boundaries: none of the places already mentioned being within, most of them being far without, the portion of the town recognised by long tradition as the special parade-ground of social London. Gone are the old Hanover-square Rooms, the scene of so many great appearances of eminent players and composers; and their prestige had to a great extent disappeared before them, on account probably of their incapacity to accommodate the increasing audiences. Willis's Rooms, where the Musical Union used to hold its afternoons, till its audiences also began to overflow the space, are still available and used on occasion for small and semi-private concerts, and the principal room is a good one for chamber music, though with nothing very attractive either in comfort or appearance, nor any special provision as a music-room. In the upper part of Regent-street is the moderate-sized room known as St. George's Hall, and now to most of us associated chiefly with the performances of Mr. and Mrs. German Reed and their company; and truly it needs all the talent and liveliness of those clever artists, and of their witty associate Mr. Corney Grain, to keep the spirits of an auditor up to pitch against the deadening effect of that cheerless, comfortless, and dingy-looking place of amusement. This also is a small room, however, and therefore only partially available, even were its quality better than its quantity. For our leading and central temple of music we must go down to Regent-quadrant, and there we find in St. James's Hall a music-room built by an architect eminent in his day for his artistic attainments at all events, and specially intended as a room for first-class concerts. It is here that we find the central musical entertainments of London: here the Philharmonic Society, the "Monday Popular Concerts," and the Musical Union, find shelter; here breathless crowds hung upon Rubenstein's recitals, and fair girls might be seen standing patiently for a long hour or more in the crush of the corridor to get a seat near the piano when the doors opened: here are to be found the most "advanced" of London connoisseurs, and here that especial product of modern æsthetic London, Miss

Bilderbogey, the lady who, as *Punch* observed, is "physically, morally, and intellectually perfect," and is serenely conscious of the fact, is to be found in great force. This hall is the centre, in short, of the musical life of the largest and on the whole the most intellectual capital of Europe,—and what sort of place is it?

When we enter from the Regent-street side (the best entrance), say on a Philharmonic night, the first thing a new visitor would notice is the sound probably of a very "rowdy" tune played somewhere well within hearing by a band of some kind, and he will begin to think he has got to the wrong place, until he understands that the temple of classical music forms the upper story over another room dedicated to that particular nigger minstrelsy which "never performs out of London." The mind is hardly put in tune for Beethoven or Brahms by this arrangement, economical as it doubtless is; and the promise of comfort for the body is scarcely better assured by the discovery that the gentlemen's cloak-room is represented by a counter in the open lobby, to which attention is directed by a cry of "Cloaks an' 'ats this side!" in a voice and style rather suggesting a transpontine theatre than a place of gathering for educated persons in pursuit of high art. The unfortunate visitor who yields to the invitation and leaves his *impedimenta* in the lobby, will find he has the probability of catching a bad cold after the concert by standing in the draught through a door opening directly from the street, while waiting for his outer coverings. The ladies' room appears to be represented by a sort of closet under the stairs, to which a handbill directs attention. If the visitor has happened to come in from the Piccadilly side, he will have had the additional pleasure first of having mounted a narrow mean-looking staircase, and traversed a half-lighted passage with chairs and benches piled on one side of it. However, let us get past all these *agrémens* and enter the room: we have the usual flat floor which all architects will persist in building, though all science and experience are against such an arrangement for seating persons who are to hear anything, whether it be music or oratory; and as usual one portion of this flat area will be under the shadow of overhanging galleries. The seats are cramped, uncomfortable, leaving no adequate room for the knees, and covered with a dirty-green stuff which looks equally bad and mean whether by daylight or gaslight. The orchestra before us is squeezed into too small a space, a recess at one end of the hall, so that even the band look as if crowded and incommoded, and when a chorus has to be seated there as well, the result is a mere and sheer cram. The centre of the niche in which the performers are accommodated is occupied by a small organ in a singularly ugly case, and which from the way it is designed looks as if it had been in danger of falling, and had been propped by temporary timber supports. The one good architectural point in the building is the circular perforated ceiling with hanging lights, which has a good effect; but a circular ceiling or barrel-vault is not the shape for an auditorium; it focuses echo. There is but one inlet and outlet for the whole of "the stalls," which form the major part of the area, and the difficulty of getting out of this is further enhanced by the tortuous course the outgoers are involved in before they can reach the street entrance. They, however, are hardly so badly off as the occupants of the two galleries, who, like those in the Exeter Hall galleries (upon which the gallery approaches of St. James's Hall would seem to have been modelled), are fairly in a trap from which exit is only possible down narrow staircases full of corners and sticking-places. If the visitor happen to go for the first time to an afternoon concert of the Musical Union, and sees the room by daylight, he will lose the one pretty effect of the hall, the lighting, and will be in a position to appreciate the peculiar refinement of the decorations which have been recently revived and touched up,—the bits of what is supposed to be "stained glass" in the windows, the big fat naked cherubs in the window-heads, which have recently, by a refinement of good taste, been painted what is supposed to be flesh colour, with pea-green draperies. The seating is re-arranged for the Musical Union concerts, which consist entirely of the more delicate forms of instrumental music, quartets, and trios for stringed instruments: it is important that all the auditors should be tolerably near the players for this class of music, and so the seats are arranged on the four sides of a square surrounding a temporary central platform, on which the performers are grouped, and a grand piano is oddly balanced with one extra long leg on the lower floor. The arrangement giving a central position to the executants is good in itself for this class of concert, but as it has to be done *extempore* for the purpose, the derangement of seats, leaving a bare space behind them all round, results in giving the room a most untidy appearance, as if it had just been "cleared for action" on some unexpected occasion. "Upstairs" consists of a narrow gallery called "the balcony" with two rows of seats, and here the audience, though much smaller than the downstairs audience, have two outlets, and a better chance of hearing; indeed, the best place for hearing in the whole interior is in the centre seats of the balcony facing the orchestra; but the adventurous person who tries this must expect to find himself exposed to a cross draught from the two doors flanking his position whenever they are opened. The next best place for hearing,—if, indeed, it be not the best of all,—is the upper gallery at the end of the hall, which has also the advantage of being much less draughty; and it is a significant illustration of the manner in which our music-rooms are planned, that hearers with whom the price of seats is "no object," prefer not unfrequently to go to this end gallery, the cheapest and therefore supposed to be the least desirable part of the house, because they can hear so much better there than elsewhere. Such are the conveniences and such the scientific planning and arrangement of the only concert-room available in the west end of London for the highest class of concerts.

The apparent indifference with which this state of things in regard to the housing of music in London is accepted, compared with the unquestionable and widespread interest in the art, seems singularly inconsistent, and can perhaps only be explained, as aforesaid, by the traditional satisfaction which Londoners seem to feel in regard to whatever has become accepted by the habit and custom of the capital. It probably does not occur to the audience to notice that St. James's Hall is ugly, uncomfortable, and ill-arranged; it is the place where they are for some time past accustomed to go for their music, and they take it as a matter of course; and so long as the public voice does not audibly demand a better room, the present one will no doubt be made to serve. It is worth remark that the art of painting has received no less than three separate acquisitions in the way of architectural enshrinement since the present central concert-room was built: the Royal Academy rooms, the additions to the National Gallery, and the Grosvenor Gallery. None of these, however, can be said to have originated to any extent under pressure from public opinion or demand for accommodation. The National Gallery is a Government affair; the Academy rooms a semi-private institution backed by Government; the Grosvenor Gallery a private investment. If the builder of the latter institution had, instead of a new picture-gallery, given London a new concert-room, he would perhaps, so far as the public are concerned, have supplied a much more crying deficiency. There is, however, room for some other capitalist to immortalise himself by undertaking the task.

Such a room, if built, should not be too large; not appreciably larger than the present St. James's Hall,—a point to be insisted upon, because of the tendency there is now to build very large rooms, in which the music gets lost, and no really intelligent enjoyment of it is possible. It should once for all break through the heresy of the flat floor for an audience, and aim at realising the best position for hearing for every individual, by the employment of the fitting curvature of floor-line. To gain this result conjointly with architectural effect, satisfactory arrangement of entrances, and economy of space, would be a difficult task for the architect,—it would have also the interest of a new problem, to be worked out without the influence or assistance of precedent. The orchestra should be deliberately and carefully planned, and constructed so as to furnish opportunity for the most effective arrangement of the performers without crowding, and of such materials as to aid, as much as possible, in the reinforcement of sound: the latter object is more understood than it used to be, and is not often overlooked; the former is, almost invariably, and orchestras are still planned and arranged mostly by chance. And along with such a room as this should be grouped one specially built and arranged for performances of chamber music, such as those of the Musical Union, on a smaller scale and planned for a central position of the executants, which is always the best for this class of concert, and should be attainable without having to disarrange and throw into disorder a whole room for the purpose every time the occasion comes round; always remembering also that a room larger than is absolutely required is a positive injury to the music. In the case of the "Monday Popular Concerts," the large audience is of course necessary to secure a remunerative return at such low prices; but people must not flatter themselves that, in a room of that size, they hear string quartettes as the composers intended them to be heard. It would be possible, however, to secure a much better result even with a room capable of holding an equally large audience, if it were purposely planned to give a central position to the players, and to place all the audience under the most favourable conditions for hearing. Still, it should be understood that compositions of the class referred to were meant for a small room, and are not properly heard in a large one.

When and where there may be opportunity for carrying out such a building it is not possible just now to suggest; but there can be no question that it is much wanted, and that there could be little real difficulty in finding site and capital for it, if the eyes and ears of the public were once opened to the necessity. The real difficulty would lie in obtaining a thoroughly satisfactory result; but this, it may be hoped (in spite of past failures), is not insuperable.

H. H. Statham.

WHAT IS THE PLACE OF THE "DILETTANTE" IN RELATION TO ART?

In the speech of the Earl of Derby at the opening of the Walker Art Gallery, at Liverpool, we find one suggestion of the occasion stated as "that very wide question,—What is the real attitude of this country towards Art, and what are the prospects of Art in England?" but the question was only stated for any attempt at answering it to be declined, on grounds that, so far as they are pertinent, are, on the other hand, incongruous with the position occupied by the speaker, who did not "dare to enter on that field." That "these are not days for *dilettanti* in any line of business," suggests a certain impropriety in a confessed *dilettante* allowing himself to be placed in a chair from which some observations in point on the question so distinctly enunciated would be more appropriate than any others. But, in truth, it is not only in these days, but in all days, that the *dilettante*, in the original and right sense of the title, has a just claim to express himself in regard to every branch of liberal art and every public institution for its furtherance; to speak about "line of business" in the present connexion is, we apprehend, nothing to any other purpose, if even fairly to that, than to carry home the maxim to the business and bosoms of an audience chiefly mercantile. *Dilettanti*,—those who delight in art,—are first the amateurs who give time to the exercise of art as a luxury; these are men who, very often indeed, not to say usually, do little more or little better than, as it is called, "dabble" in art; but some of whom sometimes, as we all know, in certain arts at least, do much more and much better; the class of amateur glides by degrees into another class of *dilettanti*, the critics, and has ever contributed to it its better ornaments, though by no means always from its own highest ranks. The time-honoured cavil that the critics are also or chiefly recruited from those who have failed professionally in art, should affect but lightly as many of them as have given the world the rare advantage of success in criticism.

Beyond the amateurs and critics lies still a third most important class of those who delight in art,—the patrons, if the word is allowable,—the true—the specific—*dilettanti*, who long for art as a delight,—as Plato would say, "itself by itself"; who do not pretend to emulate professional knowledge or skill, who cannot know anything of the delight of producing beautiful art, and are very much farther indeed from sympathy with the critic's enjoyment of detecting failure and analysing its causes. Now the endowments and cultivation of this class cannot but ever be important factors in the vital development of art. Let the professional artist be as skilful as he may in instilling his own predilections first, and in asserting his independence afterwards,—the tastes as well as the needs, to say nothing of predilections that are obstinate prejudices, of

the purseholder who commissions art in order to enjoy it, must tell at last. If he cannot regulate the art, he at least is all-powerful in his selection of an artist; at this point the issues of success and failure rest with him alone, even as life and death depend on the judiciousness of one who would not think of either writing or reading a prescription, but is absolute in his selection of a physician.

True it is that it is only when the accomplishments of a patron of art reach a certain standard, that he is entitled,—however munificent his outlay,—to the honourable title of a *dilettante*. Not such is one who regards his collections as a cabinet of simple curiosities,—as a monument of pride on the thoroughly unartistic score of rarity, extent, and costliness, or, last of all, as a commercial investment. It has been ill for English art that the collection, or even the possession, of a picture-gallery, associated with social position and rank, has been before now accepted far too readily as a certificate of a *dilettante*,—of the possession of refined and critical taste. We may now walk through the unweeded Peel collection, as exhibited at the National Gallery, and, after viewing it as a whole, come away in amazement at the authority with which the collector,—the agglomerator, rather,—was credited in art. But what were not the services to art of such *dilettanti* burgesses in Italy as gave their voices when great works were resolved on, for Nicolo Pisano, or Donatello, or Brunelleschi, or Giotto, or the sculptor of the bronze doors of the Florentine Baptistery? What do we not still owe as posterity to the Italian noblemen and prelates whose passion for art is represented by one who owned that his great reward in reaching, after long years of waiting, the papal chair, was that he was in time at last to command the services of Michelangelo?

The best powers of man can only achieve their best results under a combination of happy circumstances, many of which are beyond all power of deliberate arrangement by even a national exertion, let a nation assume what attitude it may. Still, it is something for liberal-minded legislation to remove what must be stumbling-blocks in the path of genius struggling for a chance of development, to open the ways to technical instruction, and at the same time to that wider instruction apart from which the very best natural faculty for form or colour or elaborate design will never put that into its works which will give them hold on more than ephemeral sympathies with the fleeting and the superficial. But when all is done by schools of art and other schools, we have but turned and prepared the soil, and sown, it may be, some well-chosen seed;—the glory of the harvest at last will be dependent on the social atmosphere amidst which the hopefullest plants have to spring up and strive, and take their chance to ripen. Material resources, as in most of our doings, are indispensable for most arts, of which the very materials, to say nothing of the labour and rare study bestowed on them, must needs be costly; but the moral influences are the true radiance that overcomes crudity,—the ruling climatic power that gives the healthful and immortal fragrance to the Hesperian fruit. From this point of view it becomes of far less interest to inquire what is the present attitude of England in relation to art than what it should be; for the ideal, as a standard, is ever what is first to be recognised in the mind before we attempt either to appreciate or adjust the actual. Even as regards the actual, the speaker to whom we have already referred believes that "the question is one to which, perhaps, not a dozen men in this country are capable of giving an authoritative answer." Of the "authoritative" assuredly we have no lack; but assuming that the reference was intended to men who could justly speak "with authority," a smaller number of the worthy would ere now have sufficed to save a city, and might do so still if the city only had the wit to find them, and the independence to put them in their proper places. Are we secure that the result of a poll would not now give us a tale of noblemen with inherited galleries; of voluble critics, possessed themselves by paradoxical crotchets; and picture-dealers, who have justified their agency by their purchases having shown a handsome profit when realised at a not too long delayed re-sale? It is to be feared that at such a board any accidentally better elements would have as little influence as the late Mr. Rogers found he could exert when he was customarily added to a Parliamentary Committee of taste as a becoming tribute, but only a powerless symbol, of culture independent of politics and rank; the remedy is manifestly to be sought in a livelier and more resolute sense of art in the public at its point of contact with the professional.

It is, therefore, to the strengthening of true and diffused dilettantism that we must look for one main reinforcement at least of a sound and prolific development of art;—to such a refinement of taste among those with whom it rests whether a work is undertaken or not and by whom, as to ensure encouragement where encouragement will really have valuable results. Such a demand by no means encroaches on the rights or the dignities of the artist,—of the genius; it is, on the contrary, the great security that genius shall have its fair, its full, and, quite as important, its early field. At present, the substitute for the worthily *dilettante*, in one art at least, is the art-dealer. True it is that there is no necessary reason why even he, the commercial agent, should not have all the qualities which he is desired and supposed to represent. But how far this too frequently is from being the case is notorious, or we mistake, in many a studio. He is too often known, and, again, if we mistake not, dreaded, for all his use and his convenience, as a tempter from the straight and narrow path,—though into narrowness enough at last, good sooth. There is no harm in an appeal to consciousness, not to confession, that to his door must often be laid the degradation—the vulgarisation—of better work by some tawdry addition enforced in the interest of instant saleableness, and at other times the disappointment of labour forfeited to obscurity as the penalty of more obstinate artistic self-respect.

It would be an unhappy proof of the hopelessness of the culture that we aspire to, as diffused among the wealthier community, if the maxim became general among architects or other artists, and could be put in practice, that those who commission works have nothing to do but to pay for them, must be shut out from the very first, if possible, or at least as soon and as completely as possible from any control over any part or detail in them. We might as well go back in politics at once to the Stuart principle, that the people have nothing to do with the laws but to obey them. Immediate contact with sound taste within a certain range, on the part of the unprofessional, is, for artists, the very strength-restoring contact with earth, that Antæus perished in the gripe of Hercules from not being able to renew; but that the taste to which a hearing is thus admitted should have the characteristics of culture grafted on a strong if wild stock of native good sense, is a condition of its value that must heighten that of exemption from professional "idols of the tribe," as well as "idols of the den,"—from the habits and superstitions that will gradually tend to establish themselves in a school and in a closet equally,—to accrue to a class and to an isolated student. Assuredly it is no slight advance in the nobler dilettantism, when power is acquired which enables the non-professional to recognise not alone the comparative value of an executed work, but even the character of a structure from a geometrical elevation, or even from a small model or perspective view; it is, in fact, from the difficulty of doing this, that committees of taste are exposed to the mistakes and disappointments which are so rife, and are the victims of the unlucky skill that is perfect up to the point of contriving a taking design on paper, and does not reach, or perhaps aspire to reach, very far beyond. But fallacy ever lies hidden in extremes. It is not too much to hope that with more habituation to aspects of art and improved capability of following the expositions and the courses of thought of artists, it may be possible for the non-professional to do themselves that justice, a failure in which involves so much wrong to those well-deserving who would lead them aright. Until this is the case, the world and its architects will still too often find that all their care and study has only involved them in a game of cross purposes or forfeits. Let an illustration be permitted. We once were present at a conference over an architectural design in which the owner of the house that was to be transformed pleaded somewhat persistently for the substitution of one section of the front, according to a notion of his own, as an improvement in effect. He was assured, and most certainly with truth, that the design, as it stood, would be found to justify itself by continuing to please far longer than what he proposed; it was fortunate that, to a moderate sensibility to art, he united a good sense that enabled him to follow the very distinct indications of incongruity that the question turned upon, and willingly, at last, renounced his proposal. Nevertheless, when the elevation was executed, it appeared improved by some changes in the challenged section which had not been mooted on either part, but certainly were due to the stimulus of the lively discussion upon an inventive imagination and candid mind.

No better attitude, then, of a country towards art can be desired than one which promises to the artist that prompt recognition of his art at its best that can only be hoped from a public that is worthily and genuinely "dilettante."

It certainly cannot be said of our country at the present time that it displays a lack of interest in art,—we may almost say, in any art; but it may be questioned whether this interest is not less that of the *dilettante* than of the *cognoscente*; whether there is not more of a desire to understand or be thought to understand art than of a capability really to feel and to enjoy it. So it is that disquisitions on art have a tendency to be, if not silent, merely vague or declamatory, on the truly animating soul of art and to become above all things historical or scientific,—historical it may be, in preference, because this point of view seems to command most plentifully an array of facts which have an easy scientific attribute of verifiable accuracy. The tendency in consequence is for devotion to art to drift into a study of archæology. Is it certain that in our visitations and surveys of cathedrals, disproportionate attention is not usually bestowed on the dates of its successive additions and alterations; and that a voice would not be lifted up in vain which should, however worthily, divert attention to the properly æsthetic characteristics of the structures, to identify and emphasise them? If this is so, what chance of a hearing remains for one who should reasonably venture to damp archæological fervour by indicating, as it often might, the in all directions signs of Mediæval endeavours after effect, "overdone or come short of." Yet it would be by rising to such observations either way, that the existence of an enthusiasm would declare itself, which is the outcome of a culture that harmonises the intellectual with the sympathetic energies in seemingly spontaneous union.

"I would go fifty miles on foot," says Sterne, "to kiss the hand of that man who can resign the reins of his imagination into the hands of his author,—be pleased he knows not why and cares not wherefore." Naturally this is said by an author; Yorick himself, however, would certainly spare himself the journey unless he could count on the imagination which resigned itself to delight so unreservedly being that of an accomplished if not a severely discriminative *dilettante*. The English language has no serviceable equivalent of this word "*dilettante*," in its best sense; if it is ever to be rescued from the disparaging sense which has clung to it parasitically, it must be by the heartily-to-be-prayed-for requirement to express as positive a regeneration of the tone of public taste.

THE CASTLE AND BARONY OF CLUN: HOPTON CASTLE.

The church, village, and castle of Clun are situated near the centre of a spacious amphitheatre of lofty but fertile hills, the summits and upper slopes of which are covered with young and luxuriant plantations, while in the lower parts are occasionally single trees, chiefly oak, elm, and beech, of vast size and great age, the reliques of an ancient demesne, and still standing out and to be distinguished amidst the denizens of the hedgerows, which, though often of large size, all belong to the period of enclosures and cultivation. Across this rich and smiling land, amidst hamlets, churches, manor-places, farmhouses, and cottages, with frequent orchards and gardens, green pastures and root crops, and waving corn-fields, the river Clun pursues its sinuous course, giving life and fertility to the scene, which, indeed, is throughout imbued with an aspect of peace and,—perhaps rather indolent,—prosperity.

The ancient forest of Clun covered a large tract of upland, extending with a radius of about five miles to the north and west of the seat of the barony. Its border is that of the county of Salop, and runs along the elevated ridge which, from Bishop's Moat on the east to Castell-cefn-fron on the west, divides that county from Montgomery, and the water-shed of the Clun from that of the Hafren or Upper Severn. From this latter river the ridge is distant about five

miles, and the intervening country is mountainous and broken. The natural division is in part strengthened by an artificial work, known as Saeson bank, and placed considerably to the west of Offa's Dyke, which, here very perfect, runs north and south about three miles west of Clun, and thus bisects the forest and the barony. Which of these earthworks is the earlier is doubtful, but probably the Dyke. Connected with the Saeson bank, and at right angles to it, are two short spurs, the age and object of which are not very evident.

The forest was never very thickly wooded in its upper and more exposed parts, but that it was always scantily inhabited is evident from the fact that it contains but one parish church, that of Mainstone, which stands on the very line of the Dyke, about six miles north of Clun, on the edge of a small brook,—the Ffridd. From its singular position may be drawn the inference that it is later than the Dyke.

The water-courses of the forest contribute to form four rather considerable streams, which finally unite to become the river Clun, which thence descends eastwards down a deep and rather narrow valley, by Clunton, Clunbury, and Clungunford, to Leintwardine, where, after a course of about twelve miles, it joins the Teme, the river of Ludlow and Tenbury.

The Barony of Clun, called also the Honour and the Hundred, was more extensive than the forest, and included lands of a more settled character to the east and south. Obley, Pentrehodre, Hobendrid, Hobbaris, Larkenhope, Eilesten, and Manulton, were members of the manor of Clun, which was co-extensive with the Hundred; and in the "Welshery" attached to it were the hamlets of Aderdely and Bickton, Hodicote, and Newcastle. It appears, in the twelfth century, to have contained five vills and submanors, the borough town of Clun, and the manor of Tempsett. Clun was also an ecclesiastical centre. Its noble parish church of St. George was set over the chapels of St. Thomas of Clun, St. Mary of Waterden, St. Swithun of Clunbury, St. Mary of Clunton, St. Mary of Opperton, and the chapels of Edgton and Sibdon. The whole were attached to the great abbey of Wenlock. Many of these chapelries have become independent parishes, and the hundred of Clun has disappeared as a county division, being absorbed in that of Purslow. In 1837, 8,600 acres of the old forest were inclosed by Act of Parliament, and in 1869, 1,700 more.

About a furlong below the point at which the collective waters from the forest combine to form the Clun, that stream, now of considerable volume, makes a sharp and sudden bend, in the hollow of which, upon its left or convex bank, is placed the castle. The space thus partially enclosed and protected by the river is about 600 yards in length, and is occupied by a cluster of knolls or tumps of a soft, friable rock, which has been carved and scarped for the purposes of defence, so as to present, with its decomposed and grass-grown surface, much of an artificial aspect. Amongst these knolls stands out one higher and of even a more artificial appearance than the rest. It forms a conical mound, about forty yards in diameter at its table top, with very steep sides, and in height above its surrounding ditch about 60 ft.; and the ditch, again, is about 30 ft. above the bed of the river. The ditch covers the mound upon its southern and eastern sides, but to the north and west the slope descends direct to the river level, presenting a very formidable appearance. The part not so exposed is further protected by three works in earth, beyond the ditch; of which the larger, to the south-west, is of irregular figure, and about forty yards deep by seventy yards broad, having four irregular sides, of which the inner is concave, and forms the counterscarp of the main ditch. Towards the river this platform is scarped towards the mound and the adjacent platform; its protection is a ditch, about seven yards deep by sixteen to eighteen yards broad. The top is level, save that along the edges of the three outer sides is a narrow bank,—a sort of parapet, on which was probably a stockade. At one point, where the platform approaches the mound, is a small spur, as though the ruin of the pier of a bridge, and which was evidently the main entrance to the keep or principal mound. The road to this bridge ascended the platform from the village on the south.

To the east of this is a second platform, of the same height, and about 14 yards deep by 30 yards broad, its larger face being concave, and applied to the main ditch. Its top is level, and has no trace of bank or parapet.

The third earthwork, of no great size, stands to the east of the keep mound, and abuts upon its ditch to the west, and on the river to the north. These two sides are prolonged, and the fork or hollow angle between them is occupied by a depression, formerly a large pool, having a sluice-gate towards the river. Between the bank of this pool and the southern platform is a ditch, which seems to have been used as a hollow way leading to the river front of the mound.

Between the mound and the west platform and the river are two lunated patches of meadow about 90 yards deep, the one 70 yards and the other 140 yards long; they were probably employed as a safe pasture in ordinary times for the garrison cattle, which, in case of attack, could readily be taken up the platforms, or driven along the castle ditches into the precincts of the town.

Such are the earthworks as they are now seen, and in general features much, no doubt, as they were seen when the Norman Picot took possession of his dangerous grant. They belong to the class known as burhs, or moated mounds, and date from the ninth or tenth century. By whom they were thrown up, or, rather, carved out, is unknown; but it may safely be asserted that they represent the chief residence of one of those Englishmen who invaded and settled upon the Welsh territory, and whose duty it was to defend the western and often-attacked border of the Mercian kingdom. The occupant of such a position must have been a bold and powerful leader; though whether he lived before or after the formation of Offa's Dyke is doubtful. Possibly a careful examination of the Saeson bank ridge where it is crossed by the Dyke might throw a light upon this point, and the researches should extend to Crugyn or Castle Hill, on Bishop's Castle racecourse, to Bishop's Moat, Caer-din, Tomen, Castell-cefn-fron or Bryn Amlwg, and some other camps and tumuli on each side the border. Besides these are others, both camps and tumuli, and a remarkable upright stone or maenhir within the forest, all no doubt of British date. It must be borne in mind that Clun, though an exposed part of the Mercian territory, was covered to the north-west and north by the English settlements along the Upper Severn, of which there are ample traces from Kerry to Welshpool, on both sides of the Dyke. Looking at the extension of the barony of Clun, westward of the Dyke, to a natural boundary, it seems probable that the barony was founded when the Dyke was no longer the Mercian border, and the English had pushed their settlements up the valley of the Severn. This also would be more consistent with the figure of the earthworks of Clun and of the adjacent district, which resemble those thrown up by Æthelflæda and Edward the Elder early in the tenth century, and of which Wigmore is a recorded example.

The position and estate of Clun, like those of many similar domains in England and within the Marches, were at once taken possession of by the Norman followers of the Conqueror, and held by Picot de Say as a military fief dependent upon Roger de Montgomery at Shrewsbury. Whether De Say or his immediate successors fortified the mounds with masonry after the manner then coming into use in Normandy, or whether they contented themselves with such defences, probably of timber, as they found ready to hand, is not known, but if they had at once built a keep and walls in the Norman manner, it is exceedingly improbable that no trace of works usually so substantial should even now remain, and still more so that they should have been decayed by the middle of the twelfth century, which is probably the date of the older part of the masonry now standing, and which it will be proper next to describe.

The Keep.—This is a large rectangular tower built on the lower edge and up the eastern slope of the mound, and therein resembling Guildford. Its dimensions are 42 ft. north and south by 68 ft. east and west, and the walls at the base are about 11 ft. thick, and rise to about 6 ft. at the summit. It is of three stages; the first resting on the basement, with its sill about 5 ft. below the top level of the mound. The floors are of timber, resting upon sets-off in the side-walls. The whole tower is about 80 ft. high, its base being about 30 ft. above the river. The west wall is entirely gone. The two eastern angles are capped each by two pilasters, 14 ft. broad and 1 ft. projection, meeting at a solid angle, and carried up without break or diminution to the summit, where they may have supported square turrets. The eastern curtain, between them, has a battering base, and a plain cordon at the first-floor level. The walls are perfectly plain, of coursed masonry, the stones probably hammer-dressed, but being of a perishable character they are much blistered and decayed. The basement, 40 ft. by 45 ft., has a floor about 20 ft. above the outer-ground level, now covered up with rubbish. There is a small window to the south, and a small square air-hole to the north, high up, as from a dungeon. In the same side, near the middle, is a full-centred doorway, 2 ft. 2 in. broad, once closed by a stout door, and opening upon the slope of the mound. It leads into a passage 3 ft. 6 in. broad, which entered the chamber, but had on its left a mural staircase of sixteen steps, which led to the first floor. Many of the steps remain, but the inner wall, and most of the hanging arches of the vault, are gone.

The first floor, 23 ft. by 45 ft., had two windows to the south, one to the east, and to the north two, with a fireplace between them. The windows are broken into mere apertures, but the recesses are 5 ft. to 6 ft. broad. The fireplace has a round back and a vertical tunnel. The hood is broken away. There are no mural chambers, but outside, on each face of the eastern angles, are two sham loops.

The second floor has also five windows above, rather larger than those below, and a fireplace in the same position. In each jamb of the east window recess is a small door, which, by a passage, leads into a mural chamber in the two eastern angles. Each, on each of its two outer faces, has a small window.

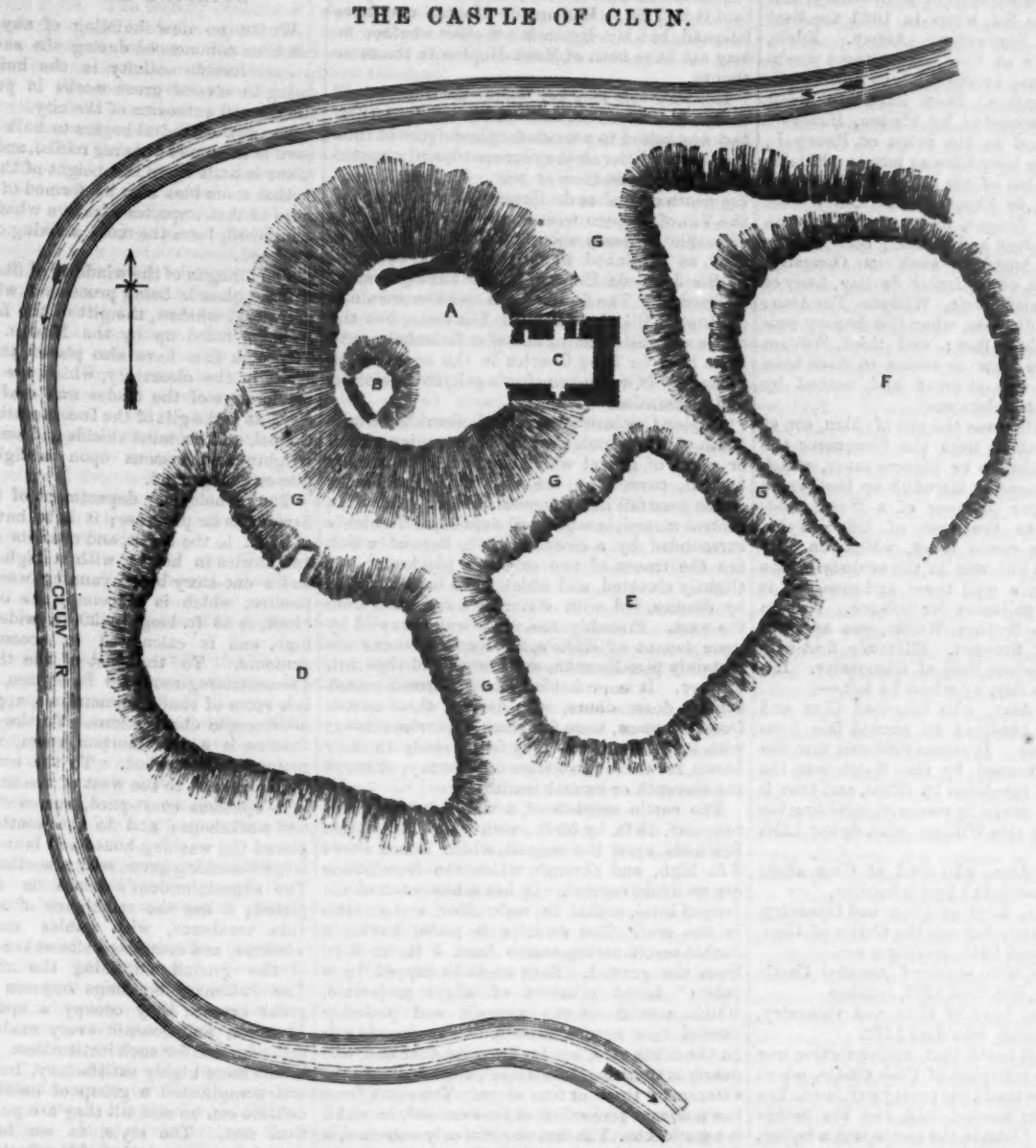
The third floor has two windows to the north, one to the east, and two to the south, but here the position of the fireplace is between them. From the east window recess are two passages, opening into two chambers, each with two small windows above those of the second floor. The second floor was the state-room, and the third apparently bedrooms belonging to it. The staircase may have been in the west wall. Of the window recesses, some have arches obtusely pointed, others are segmental. No doubt there was a door in the west wall, opening from the mound. The recesses of the windows of the second and third floors had each an ashlar rib, the only sort of ornament now visible. The keep, though of large size and substantially built, suffers in appearance from the badness of its material, its rough workmanship, and the very sparing use of ashlar in its details.

The summit of the mound was encircled by a curtain wall, of which the upper part of the keep formed a part, so that with the rectangular keep to have been combined a shell keep, a most unusual arrangement. Of this shell there remain two fragments; one, a considerable one, towards the north-west, is composed of two nearly half-round towers, or rather bastions, with their converse faces outwards, and a short curtain connecting them, which seems to have been the end of a hall, and to contain some later insertions. The bastions are no doubt later than the keep. The other fragment is to the south-west, about 12 ft. long by 6 ft. thick, and 20 ft. high. This also formed part of the general *enceinte*, but connected with it is a small circular mound, thrown up on the edge of the greater one, and wholly artificial. It is about 21 ft. across at the top, and 12 ft. to 13 ft. high, and possibly carried a small tower; near it a depression seems to indicate the position of the well. The whole surface of the mound is rough and scarred, as though the area had been covered with buildings, as at Tamworth, and of which the foundations had been dug up.

The entrance to the mound could only have been on the western side, ascending from the south-west. All the other sides are absolutely impracticable, and this has been so cut about that every vestige of a road is gone. On the platforms are no traces of walls. They may have had gatehouses of some sort, but the outer defences were probably always of timber.

The greater part of the borough, town, or rather village of Clun, is placed to the east—that is, in the rear of the castle; but there are houses on both banks of the river, which is spanned by an ancient bridge of five ribbed arches, with recesses above over the projecting piers. In this direction, a furlong from the castle, is the fine and mainly Norman church of St. George, with a western tower, strong enough to stand a siege, and in pattern resembling those of More and Hope-Say. About a hundred yards beyond or south of the church is a very remarkable ravine, natural, but which has, at that point, been scarped, and the earth thrown inwards to form

THE CASTLE OF CLUN.



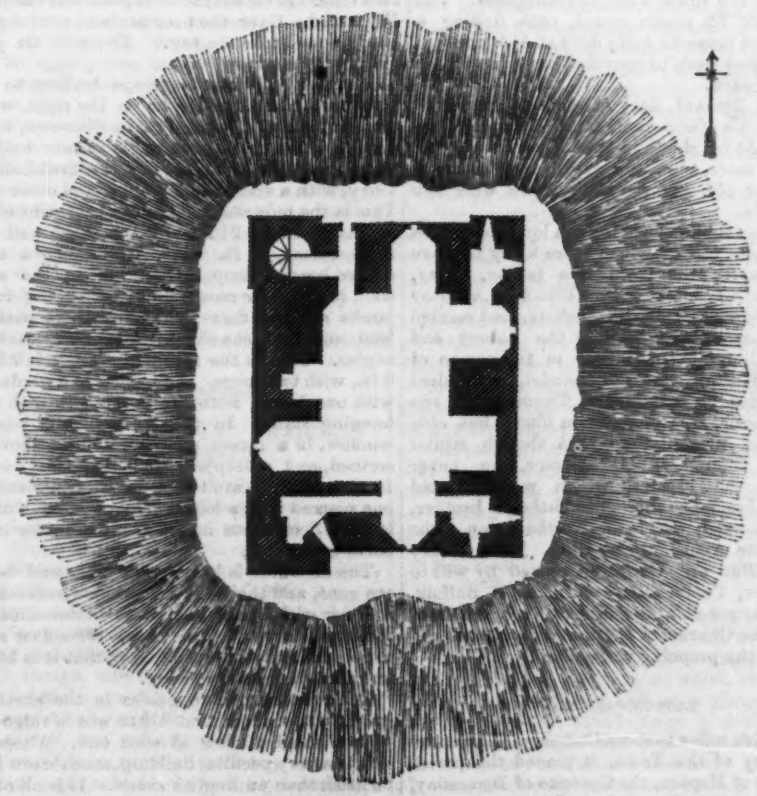
A. Great Mound. B. Little Mound. C. Keep. D. 2nd Platform. E. 3rd Platform. F. The Pool. G. Ditches.

a bank. This ravine commences some way above the church, and, becoming deeper and more steep, conveys a very considerable brook into the Clun, a little below the town. This ravine adds immensely to the strength of the place.

Clun is a borough by prescription, having two bailiffs and a recorder. Recently it possessed a hundred court for the recovery of small debts, and a court leet. The bailiffs, also, held a civil court. The Fitz-Alan charter, recognising its prescriptive rights, dates from the reign of Edward II. In the town is an ancient almshouse, founded by Henry Howard, Earl of Northampton, in 1614; and below it, upon the river, the traces of a very considerable millpool, now dry.

Clun is entered in Domesday as held by Picot. Edric had held it. Picot held large possessions (twenty-seven mansions) in the then hundred of Rinlau, besides Conodovre, Basechere, and Lentevrde, under Earl Roger de Montgomery. It appears from Mr. Eyton's researches that Picot was a to-name, and that the grantee, as Robert de Say, with Adeloya his wife, and Robert and Henry, his sons, is named in a charter relating to St. Martin of Sees, of the probable date of 1060, and is there described as "Robertus de Sai qui cognominabatur Ficot." Sai was a vill near Ermes, the chief seat of the Norman viscounty of Earl Roger, who was the patron of the House of Sees.

That which in 1060 was a cognomen, in 1086 had become a nomen. In 1074 Oderious refers to him simply as Picod, one of the five whom Earl Roger



HOPTON CASTLE.—*Ground-Plan.*
Scale—1-20th inch = 1 foot.

placed over his new earldom of Shrewsbury, and again as Picot de Sai, when in 1083 the Earl vowed to found Shrewsbury Abbey. Edric, Picot's predecessor at Clun, was without doubt the Edric Silvaticus, or the Wild, so well known on the Welsh marches. Picot lived till about 1098, and was succeeded by his son, *Henry* de Say, who flourished in the reign of Henry I., and seems to have been alive as late as 1129–30. In his time, or that of his successor, and probably son, *Helias* de Say, Clun and Obley were eliminated from Ringau, and erected into an independent hundred and honour; becoming, in fact, a marcher lordship, such as Oswestry. Helias left a sole child, *Isabel* de Say, Lady of Clun, who married—first, William FitzAlan; second, Geoffrey de Vere, when the barony contained 11¾ knights' fees; and third, William Boterell, in whose time it seems to have been that the castle was stormed and burned by Llewellyn and his Welshmen.

William Fitz Alan was the son of Alan, son of Flaald, who obtained from the Conqueror the manor of Oswaldestre or Blancminster, which in 1148 had belonged to Meredith ap Blethyn, a somewhat singular instance of a Welsh landholder so far to the east of Offa's Dyke. Meredith built a castle there, which, on Fitz Alan's death in 1160, was in the custody of the sheriff, who sank a well there, and provided it with stores and palisades for defence. William Fitz Alan's next brother, Walter, was ancestor of the House of Stewart. William's first wife was a niece of Robert Earl of Gloucester. His second, Isabel de Say, by whom he left,—

William Fitz Alan, who inherited Clun and Oswestry. He obtained an annual fair from King John for Clun. It seems probable that the Castle of Clun burned by the Welsh was the timber structure inhabited by Edric, and that it was replaced by works in masonry, including the existing keep, by this William, who, dying 1210, left

William Fitz Alan, who died at Clun about 1215, and was succeeded by his brother,

John Fitz Alan, Lord of Clun and Oswestry, who held the Barony but not the Castle of Clun, and who died about 1243, leaving a son,

John FitzAlan, who acquired Arundel Castle from his mother, and died 1267, leaving

John FitzAlan, Lord of Clun and Oswestry, and Earl of Arundel, who died 1272.

It was upon his death that an inquisition was ordered into the condition of Clun Castle, which was reported to be small, but pretty well built. The roof of the tower wanted lead, and the bridge to be repaired. Outside the castle was a bailey, enclosed with a foss, and a gate not yet finished. In the bailey stood a grange, stable, and bakehouse. In the town were 183 burgages. The tenants held by castle guard, each finding a serviens and horse for forty days at 4½d. per day. The burgesses were to provide twenty men when the lord hunted.

In 1293 Richard, Earl of Arundel, received 200*l.* from his Welsh tenants in Tempsett for a charter. At his death in 1301, Clun Castle was worth no more than the expenses of its maintenance, or 20*l.* per annum. There were two water mills.

Clun continued to be held by a long succession of Fitz-Alans, few of whom were likely to have resided, until, the male line failing, Mary, daughter and coheir of Henry Fitz-Alan, married Thomas Howard, Duke of Norfolk, and carried the Earldom of Arundel and the Barony and Castle of Clun into that family in the person of her son Philip, Earl of Arundel, who died 1595, under an attainder. Thomas, his son and successor, was restored in blood, but only partially in property, so that though titular Lord of Clun and Oswaldestre, he never possessed the estates, which were granted by King James to his grandfather's brother, Henry Howard, Earl of Northampton, who founded the Almshouse at Clun. From Henry Howard, Clun and Oswestry passed by will to his nephew, Thomas Howard, Earl of Suffolk, whose younger son, Sir Robert, has a monument in the Church of Clun, and by whose descendants the property was sold.

HOPTON CASTLE.

About five miles east-south-east of Clun, upon a tributary of the Teme, is placed the parish and castle of Hopton, the Opetune of Domesday, when it was, like Clun, held by Picot as the successor of Edric. It was a fief of Clun. In 1165 it was held by Walter de Opton as two knights' fees under Geoffrey de Vere, one of the three husbands of Isabel de Say; and Peter de Opton held it in 1201. William de Hopton may have followed, but Mr. Eyton is not clear whether he may not have been of Monk-Hopton in the same county.

However this may be, Walter de Hopton held the fief in 1223, as did another Walter, 1255-1272, and was bound to provide for the defence of Clun Castle one soldier all the year round, and a second for forty days in time of war. In 1304-5, upon the death of Walter de Hopton, he was seized of the Vill of Hopton with its hamlets, and a considerable property about it, chiefly held under Clun, as continued to be the original two fees, by Sir John de Hopton, in the twenty-first of Richard II. The family seem to have remained at Hopton till the reign of Elizabeth, but the castle was still standing and of sufficient strength to be held for King Charles in the seventeenth century. It was taken after a gallant resistance, and dismantled.

Hopton Castle or Tower stands about half a mile south of the parish church. It occupies a knoll or patch of gravel which rises out of a marshy bottom, caused by the waters of the brooks which here fall into the main stream. There is a central mound, low but well defined, and which is surrounded by a circular ditch, beyond which are the traces of two or three platforms, but slightly elevated, and which have been fortified by ditches, fed with water by a streamlet from the west. Probably the place was occupied by some tenant of Edric's, for its earthworks are certainly præ-Norman, and probably of the tenth century. It is probable that its Norman tenant and his descendants, who derived their names from the place, were for some centuries content with such defences as they found ready to their hands, for there is no trace of masonry, either of the eleventh or twelfth centuries.

The castle consists of a single tower, quadrangular, 48 ft. by 50 ft., with walls 10 ft. thick. It stands upon the mound, which is not above 6 ft. high, and through which the foundations are no doubt carried. It has a basement at the ground level, a first or main floor, and an attic in the roof. The exterior is plain, having a double-scroll string-course from 4 ft. to 6 ft. from the ground. Each angle is capped by a pair of broad pilasters of slight projection, which ascend to the summit, and probably carried four square turrets. The doorway is on the north side, not far from its west end, and nearly at the ground-floor level, ascended from the exterior by three or four steps. The south front has a square projection at its west end, in which is a garderobe. The doorway, the only entrance, is 6 ft. wide, and has an equilateral arched head. Its mouldings are two convex quarter circles divided by a step. Their character is plain but excellent Decorated. Over the doorway was a triangular hood, now broken away. There is no portcullis, only a strong door.

Entering, a vaulted passage leading to the basement has a small door on the right, which leads into a well stair, 6 ft. in diameter, which occupies the north-west angle of the building and ascends to the roof. At the first-floor is a lobby, with a small window above the outer door. This is the only staircase. The basement chamber is 29 ft. by 21 ft. In the north wall is a deep recess, 7 ft. wide, containing a small square-headed loop. Opposite, in the south wall, is a similar recess and window, but in the jambs are two doors, which by short passages lead into two chambers in the two southern angles. That in the south-east angle is 7 ft. by 6 ft., with two loops. The other is a garderobe, with one loop. Both are covered in with overhanging slabs. In the west side is another window, in a recess, similar to those above described, and a fireplace with a vertical tunnel. In the east wall are two recesses, one blank and one pierced with a loop. From the jamb of this latter a door opens into a small chamber in the north-east angle.

The first-floor is lofty. The joists and boards are gone, and the walls and window-recesses are so thick with brambles and so inaccessible that the details are not to be seen. This floor seems to resemble the basement, save that it is higher, and the windows are larger.

The remains of two gables in the north and south fronts show that there was a ridge roof, with a small window at each end. Altogether this is a very peculiar building, much more like a Scottish than an English castle. It is all of one date, probably the work of Walter de Hopton, who died in 1304–5, and seems to have been a man of considerable wealth and power.

G. T. C.

BUILDING IN EDINBURGH.

While no new building of any importance has been commenced during the summer, there is considerable activity in the building trade, owing to several great works in progress, and the general extension of the city.

The new cathedral begins to bulk largely; the nave is in course of being roofed, and the central tower is built up to the height of the roof ridge, so that some idea may be formed of the dimensions of that important feature which will, when completed, form the most striking object at the west end.

The filling in of the windows of St. Giles's with painted glass is being proceeded with, and the great east window, the gift of the Lord Provost, is being fitted up by the Messrs. Ballantyne. The same firm have also placed the first of a series in the clearstory, which are to be commemorative of the trades and craftsmen of the city. It is the gift of the Incorporation of Mary's Chapel, and contains shields and emblems of the wrights and masons upon a lightly-outlined diaper background.

The pathological department of the new Infirmary is in progress; it is to have a frontage of 87 ft. to the north, and consists of a pavilion two stories in height, with a high-pitched roof and a one-story block running westward. The theatre, which is to occupy the centre of the block, is 43 ft. long by 30 ft. wide, and 23 ft. high, and is calculated to accommodate 200 students. To the east of the theatre is the demonstrating-room, 29 ft. square, above which is a room of similar dimensions, appropriated to microscopic observations. To the west of the theatre is a post-mortem room, with waiting-rooms, &c., attached. To the south of these buildings, and to the west of the surgical wards, is a spacious court-yard, surrounded by stores and workshops; and to the south of these is placed the washing-house and laundry, having a large bleaching-green with a southern exposure. The superintendent's house is almost completed; it has the semblance of a comfortable villa residence, with gables and mullioned windows, and occupies a site at the extreme east of the ground adjoining the meadow-walk. The Infirmary buildings impress one by their great extent; they occupy a space of about 12 acres, and contain every modern improvement devised for such institutions. The arrangements seem highly satisfactory, but in so large and complicated a group of buildings nothing definite can be said till they are put to the practical test. The style, as we have formerly stated, is an adaptation of the Scottish Baronial, with considerable variety in the treatment of the various parts.

The spire and chancel of All Saints', Morningside, are completed so far as the exterior is concerned. The spire is a graceful production, crocketed in the upper stage. The chancel consists of an octagonal apse and aisles. The clearstory windows of two lights have rich tracery, and are surmounted by gables between pinnacled buttresses. The aisle is also buttressed, and from these flying buttresses are thrown to the clearstory. The effect of the whole is somewhat florid, and hardly unites satisfactorily with the body of the church, which consists of a nave of wide span, without aisles. The church was designed and carried out under the superintendence of Mr. H. J. Blanc.

The Baptist church in Marshall-street is completed and occupied. It contains on the ground-floor a hall and other apartments; the church being placed above, is approached by two staircases. There are three doorways, with windows between. The centre of the upper stage is occupied by a large four-light window with circular tracery supported by shafts with foliated caps, this is flanked by two-light windows with similar tracery. The centre compartment is elevated above the side divisions, and is crowned by a very bold raking cornice. In the interior the church is surrounded on three sides by galleries, panelled and enriched with carved bosses; above the side galleries the roof is flat and boarded, but the central roof is wagon-shaped, and is also boarded and divided into compartments by trussed principals, springing from iron shafts. The pulpit takes the form of a platform, with a wood canopy in the centre. The style is Lombardic, the openings throughout are circular-headed, and spring from carved imposts. The building possesses a marked individuality of character, and has been carried out consistently.

The Free Tron Church, in Chambers-street, is

nearly completed. It exhibits a different phase of the Lombardic style. The tracery consists of circular pierced openings, and the detail has somewhat of a classical leaning. The front elevation is very rich in carved detail, but this is not carried out in the east elevation, which is open to observation from the thoroughfare, and should have had more attention bestowed upon it, and had some of the lavish detail of the one elevation been dispersed over the other it would have been to the advantage of each. As a church the aspect of the building is somewhat peculiar, owing to the fewing plan, which restricted the architect to a predetermined outline designed for buildings devoted to other purposes; still, however, the building cannot be mistaken for other than it is. The interior, which is fitted up with galleries, is lofty and spacious. It is roofed in by a vaulted stucco ceiling, having a small dome at the west end. The fronts of the galleries are to be richly moulded and panelled, and the pulpit is to consist of a broad platform with a decorated backing against the wall under the great east window. The interior presents a good field for coloured decoration, which may be carried out in the future when sufficient funds are forthcoming. These two churches are designed by Mr. R. Thornton Shiells.

In a limited competition for a new United Presbyterian church at Dalkeith-road, Messrs. Sutherland & Walker were the successful architects. It is to be a Gothic edifice of considerable dimensions.

At Fountainbridge a new church for the Evangelical Union was opened a short time ago. It was designed by the Messrs. Hay, of Liverpool, and is of a very simple early Gothic style. The doorway is flanked by triplet windows lighting the schoolrooms, and three triplet windows light a hall above. The church is placed out of sight in the rear; it is seated for a congregation of 400, partly accommodated in a gallery supported by iron shafts.

At St. Leonard's-street an Established Church is in course of erection from the designs of Mr. Lessels. It is to be a plain example of Early Gothic.

In Edinburgh theatrical enterprise appears doomed to failure. The Edinburgh Theatre, Castle-terrace, one of the finest in the kingdom, the building of which was carried out with so much vigour, was not, when completed, vigourously managed, and was ultimately carried on at a loss. The building, which cost somewhere about 80,000*l.*, has been sold for 26,700*l.*, a sum said to be only sufficient to meet the liabilities of the shareholders. The purchasers are the synod of the United Presbyterian Church, and the purpose to which the building is to be adapted is a theological college and synod-hall. Plans for the proposed adaptation have been prepared by Mr. Dick Peddie. The whole of the thick internal walls may be retained, allowing space for an ample hall, with an area of 7,320 ft., to which a floor space of 3,014 square feet may be added by erecting a gallery. Around this hall would run two stories, affording a sufficient accommodation for class-rooms, library, mission-board and professors' rooms. The cost of the proposed alterations is estimated at about 10,000*l.* At either side there is ground extending to 65 ft., with two frontages still unbuilt upon, and such portion as is not required for ecclesiastical purposes remains to be disposed of by the purchasers.

Some old tenements to the west of the Corn Exchange are being demolished to admit of an extension of that building, the plans of which have been prepared by Mr. Moreham, city superintendent.

The western portion of the new vegetable markets is to be appropriated to the purposes of an aquarium, the remaining space being considered sufficient for market purposes.

The internal fittings of the Union Bank buildings are being pushed on, and it is expected the bank officials will be able to gain possession in the ensuing spring.

No start has yet been made with the new University buildings; an active canvass is going on for the purpose of raising the voluntary contributions to the sum necessary to secure the Government grant.

The new Board Schools at Dalry are nearly completed; those at Marshall-street are occupied, and those at Canongate in progress. New schools are contemplated at St. Leonard's, those at Marshall-street not having been found sufficient to meet the requirements of the district.

Upon the grounds of Warrenden Park new streets and terraces are springing up; the elevations show a departure from the stereotyped style, the sky-lines being broken up by gables and peaked roofs, and the respective blocks are not mere repetitions of each other, as is too often the case.

Operations proceed steadily at the West End. The grounds of Dean, Drumsheagh, and Coats are gradually being covered with fashionable dwellings of the vernacular type.

The environs of the city begin to assume a new aspect. Green pastures are now being studded with villas, some of them interesting examples of that class of residences, but the majority commonplace.

A portion of the lands of Coltbridge, to the south of the Glasgow-road, is being rapidly taken up, and here we see specimens of each class, one at the south-west angle being more curious than beautiful.

The farthest plot of the grounds of Merchiston, which extend about a mile westward from Morningside, has one large villa in course of completion, most of the sites to the eastward being already occupied.

A start has been made upon the lands of Craiglockhart, which bound those of Merchiston on the west, and upon these grounds, and to the north of Spyelaw-hill, a hydropathic establishment is in progress, from the designs of Messrs. Peddie & Kinnear. Beyond this, again, upon the estate of Dreghorn, a villa is nearly completed for Mr. Alexander Ballantyne, glass-stainer. Ere long the pretty village of Colinton, so lately three miles from the city, will be united to it by a range of suburban residences.

Immediately to the south of Morningside, beyond the city boundary, and between the highway and the site of the Metropolitan Cemetery, a new street is in progress.

Upon the lands of Blackford several first-class villas have been erected, and others are in progress; and the southern portion of the Grange Estate is for the most part in the hands of building speculators.

Active operations are going on to the south of Newington. Facing the old Liberton-road are four new terraces of two-storied residences, with garden plots in front. Two of these are of the usual dull, monotonous sort, but the other two are pleasing examples of their class, one being the first example here of the half-timber style.

On the new Liberton-road the villas extend as far as the toll-bar, and on the lands of Prestonfield, overlooking the Queen's Park, the builders are actively at work.

It is painful to observe that some speculative builders have got hold of part of Arniston-place, Newington, and are building shops upon the garden plots in front of them. It is much to be regretted that the feu charter contains no prohibition against such a procedure, so that in course of time this respectable suburb, which forms an appropriate entry to the city from the south, may assume the unattractive aspect of the New Cut.

Sir Walter Scott states that, when a boy, as he was proceeding in company with relatives from Edinburgh to Leith, he ventured to express an opinion that the seaport might one day be united to the city, and was snubbed for talking nonsense. No one now would be considered as doing so were he to predict that the villages of Corstorphine, Colinton, and Liberton would ultimately be absorbed in the city.

Such being the state of matters, the civic authorities intend to apply for an extension of the municipal boundaries.

THE LATE MR. RAPHAEL BRANDON, AND HIS WORKS.

THE most unhappy end of the really useful life of the late Mr. Raphael Brandon, a name so widely known, calls attention, and painfully, to many things which, we must suppose, attach unavoidably to professional life, as it is generally termed. In Mr. Brandon's case it has certainly come to a more than usually unhappy ending, but it must not be thought that his special troubles and disappointments were peculiar to himself, though, may be, he was affected more keenly by them than others might have been. Many have had, and have, troubles quite as great as his, and indeed greater, and painful indeed would it be to set them forth; but a little good may perhaps be done by calling a moment's attention to the work which in this life Mr. Brandon did, and to remind the architectural world what it owes to him,—Mr. Brandon, or rather we might perhaps more correctly say to the Brothers Brandon, for while his brother lived they constantly worked together, and what they did passed under the joint names always as the work of both of them.

Mr. Raphael Brandon was articled in 1836 to Mr. W. Parkinson, of Sackville-street. In conjunction with his brother, Mr. Arthur Brandon, he was the author of several books well known, and indispensable, at least at one time, to the professional architect, and in memory of him we may usefully call attention to them. They were, and yet are, most useful books, and supply information not elsewhere to be met with. We take them as we have them before us. There is first their useful book on "Parish Churches," consisting of plans and perspective views of English ecclesiastical structures, the plans being drawn to a uniform scale, with short letter-press descriptions. The last number of this book was at press when Arthur died, in December, 1847. It was dedicated afterwards by Mr. Brandon to the memory of his "one brother." It contains a list of sixty-three churches from most of the counties of England, with short descriptions, perhaps too short, with the leading dimensions of each building. It is but a few who can personally visit the old churches of England, our "antiquities," and the gratitude of those who cannot must be accorded to men like Raphael Brandon and his brother, who enable such to get but a glimpse, however slight, of what they hear of, but can hardly expect to see. There is no attempt here to go out of the plain practical way, and no effort to make of these useful sketches "pictures," but all is carefully and conscientiously done, and both views and plans are strictly "practical."

The other book which the brothers produced, and which has proved useful to architects in many ways, is their so-called "Analysis of Gothic Architecture." This book is industriously illustrated by more than 700 examples of doorways, windows, and details of Ecclesiastical buildings. It was dedicated to the father of the late Marquis of Northampton. The book was produced, say the authors, to be a practical rather than an historical work on English Church architecture. Unyielding Gothic men were the brothers Brandon, for their preface tells that Saxon architecture, though curious, is but rude and barbarous as a constructional system; and that even its successor, the Anglo-Norman, has but few if any claims to our regard and adoption, and that in it is to be traced all the impress of a lingering barbarism! And they further say, and it is useful to note this,—that "Continental Gothic," beautiful as it is, cannot be consistently associated with English details, each possessing distinctive features which it is impossible to blend together without serious injury to both of them. The illustrations in this book of windows, tracery, mouldings, doorways, piers, and arches, woodwork and metal work, afford proof of the work done by these industrious architects. It is, indeed, a pity, and a thing to mourn over, that so much of painstaking in life should end in disappointment, and worse than disappointment.

Another of the two brothers' useful books is the "Open Timber Roofs of the Middle Ages," with perspective and working drawings of some of the best of these church roofs. There are thirty-five roofs illustrated in this book, from Herts, Suffolk, Norfolk, Gloucestershire, Cambridgeshire, Lincolnshire, Leicestershire, Warwickshire, and Northamptonshire. In the introduction are some useful hints and information as to the timber roofing of the Middle Ages, and the brothers urge in it that the churches built by our forefathers bear all the impress of the typical and elevating spirit of Christianity: they were built for the glory of God, not merely for the convenience of man, and we can but regard the wrecks that remain of them with a feeling that,—

> "They dreamt not of a perishable home who thus could build."

The book begins with simple beam roofs, and contains, by the way, the most useful architectural drawings,—geometrical drawings,—so that the form and the principle on which the roof is constructed is plainly and at a glance visible. The professional world owes a debt to the brothers Brandon for this book especially, for it serves the one useful and necessary purpose of showing practically and constructively what the builders of the Middle Ages really did with the materials they had at hand, and how all these materials, whatever they were, were made to harmonise. The extent to which the "Analysis"

and the "Roofs" have been used as mere pattern-books is enormous.

Without giving a complete list of the buildings designed by Mr. Brandon, there are three especially in London, and within easy sight, which may be enough to remind the reader of his mode of design, and of what he endeavoured to realise in Gothic architecture as practised in these modern days. There is the large church in Gordon-square, built for the members of the Catholic Apostolic Church, which he executed in conjunction with Mr. Ritchie; it is not even yet, we believe, quite finished. There is the small church or chapel in Great Windmill-street, close to the Haymarket; and a third in Knightsbridge, unhappily wedged in between two public-houses. These three ecclesiastical edifices are, perhaps, enough to enable any careful observer to form an idea of the mode of design in the way of Gothic church building practised by Raphael Brandon, and they are outcomes of the books we have above called to mind, and which, indeed, may be said to be the preparations for them. The Gordon-square church was certainly a fortunate opportunity. It is, as is well known, most solidly built, and stone has been used throughout it, so that the material, and that is no slight advantage, called for a little more than usual painstaking. This is not the opportunity for the looking at it critically. We would here but cite it as a noteworthy example of the endeavour of the architects to reproduce the ancient forms, and that they took a good deal of pains and expended a good deal of thought on it no one will dispute who will *in memoriam* look at it.

The church in Windmill-street, St. Peter's, we would say a few words further about, and would instance it as a work showing more than his ordinary fancy, and a departure from conventional and standing rules. With so much detail, and with some carving above the average, it might be asked why does such a building as this fail, from the hands of so careful an architect, to impress the looker-on with as much awe and respect as a veritable *old* church, so many of which Mr. Brandon studied and measured, and thus so thoroughly understood? The answer must be,—and there is, in reality, no other,—it fails in detail, or rather in the practical working out of that detail, and consequently in expressional power over the mind; and this not only over the mind of the professional and learned spectator, but that of the uneducated and unlearned looker-on. In justice to Mr. Brandon, we must needs say that he did see this shortcoming in modern architectural work, and thus it was that he was among the first of those who united in the effort to help to remove it, if possible, or at least to make the attempt to do so. He could not but see, after examining and carefully measuring so many buildings full of this power over material, that a something was wanting, and he was always ready to give a kindly help to any effort made to remedy present shortcomings.

Upon his melancholy death we hardly like to dwell; still it should be made to call attention to the uncertain phases of professional life, and to the sometimes unexpected termination of an apparently prosperous beginning. But it is easy to talk. Who, says the great play-writer, can control his fate? and what strange, and at times, all but incredible accidents,—accidents of a moment,—happen to dull, and at times to destroy, the brightest prospects! It is, indeed, melancholy to think of how slight the causes have been which have in some cases disturbed, or even brought to an end, the fairest commencements. Men of genius, and with exceptional powers, have in how many cases failed, while seemingly duller minds have achieved a successful career. In Mr. Brandon's case, it is perhaps a little difficult to see *why* he failed professionally. And yet we have heard him more than once regret his inability to do all, or even a jot, to use his own words, of what he intended and wished to do. But is not this a common feeling in all those who try to do their best in professional and more than all in artistic life? The life of the artist is always uncertain, every way; and much might, indeed, here be urged about it, and its perils and uncertainties, but we must forbear, and learn a lesson from this unhappy event. All cannot prosper equally well: it requires more qualities than ability to make a successful man.

Conversazione.—The Architectural Association will, as usual, open the architectural season. The *conversazione* will be held at the House in Conduit-street, on Friday next, the 26th inst.

INTERNATIONAL CONGRESS OF ARCHITECTS.

Some members of the Paris *Société Centrale des Architectes* are engaged, we understand, in arranging for an International Congress of Architects, to be held about the time of the presentation of medals and rewards in connexion with the Exhibition of 1878. Mr. Charles Lucas, of 8, Boulevard Denain, Paris, would give any information that might be asked for.

ST. JOHN'S CHURCH, UPPER HOLLOWAY.

BRACING WALLS.

An interesting experiment has just been tried at Holloway, and having been attended with success we lay the particulars before our readers.

St. John's Church was designed by the late Sir Charles Barry, and is of Gothic design, consisting of a nave supported upon six arches, with side aisles, each containing a gallery. The tower is at the west end of the nave, having on either side staircases leading to the galleries, and there is a small chancel at the east end. The church is constructed of brickwork, with stone dressings, and internally is lined with stucco. The stratum beneath the church is clay, with beds of "slipper" between, and for some years the appearance of cracks above the eastern arches and walls has given cause for great anxiety. Within a few yards of the chancel the South Tottenham Railway has been constructed in open cutting, and there is no doubt but that this work has greatly weakened the foundations of the structure.

So great has been the progress of the cracks lately that the authorities became very much alarmed for the safety of the congregation, and at last it was deemed necessary to close the church.

Mr. R. M. Ordish, C.E., having been consulted, that gentleman conceived the idea that further progress of the giving way of the brickwork might be prevented by bracing up the walls with wrought-iron rods, and consequently he decided to introduce on either side of each longitudinal wall, just above the arches, a wrought-iron rod, 3 in. diameter, and having at each end a bed-plate the full thickness of the walls. The rods and cast-iron bed-plates were entrusted to Messrs. Handyside, of Derby, whilst the fixing and general arrangements were carried out by Messrs. Dove Brothers, of Islington, the whole being under the personal superintendence of Mr. Ordish.

The rods having been attached to the bed-plates, the process of screwing up was commenced on Wednesday week in the presence of many professional gentlemen. Mr. Ordish was of opinion that, in order to equalise the strain upon the walls, the four rods, in length about 125 ft. each, should be merely attached at each end, and for a bearing of 84 ft. should be allowed to sag by their own weight, and in screwing up, the amount of strain would thus easily be ascertained. It was decided that the rods should be tightened up to within 1½ in. of their horizontal line.

The whole operation took about five hours, and gradually the ugly cracks were observed to close, and by evening the screwing up was satisfactorily accomplished.

As we have said, Mr. Ordish personally superintended the work, assisted by Mr. Hess, who watched the behaviour of the rods and internal structures.

LARGE BLOCK OF SHOP AND OFFICE BUILDINGS IN FINSBURY.

When the extension of the Metropolitan Railway from Moorgate-street to Bishopsgate was in progress, the railway company contemplated the erection of an extensive new hotel on the site belonging to them in front of the Moorgate-street Station, under which the railway passes. The project was, however, abandoned, and the land has been leased to Mr. E. J. Cave, builder, who is at present erecting a very extensive block of shop and office property on the site, which, when completed, will be a very prominent feature in the architectural character of the locality. The block will have three distinct frontages, all containing shops on the ground floor, with offices or other places of business on the upper floors. The principal elevation in Finsbury-pavement, immediately opposite the Circus, will be 185 ft. in length, and 60 ft. in height to the cornice, the central portion of the elevation, which will be surmounted by a clock-tower, being 76 ft. high. The building will contain four stories above the ground-floor portion of the structure, the latter being carried up in Portland stone, with polished red granite columns. The upper portion of the elevation is in Bath stone. Each story above the ground floor has a range of sixteen lofty windows, the dormers being alternately pedimented and arched, with vases between them. The main cornice, projecting 2 ft. beyond the general frontage-line, will be supported on ornamentally-carved trusses, and there will also be a free introduction of carving in other portions of the elevation. At each end of the elevation there is a Mansard roof, surmounted by iron cresting. At the north and south of the elevation, on each side of the shop frontages, there are two open passages, 10 ft. in width, forming arcades, leading into Little Moorfields, and which will also form the approach to the Moorgate-street Station from Finsbury-pavement, and on each side of these arcades there will be shops in addition to those in the several frontages of the building. With the exception of the central clock-tower, the Little Moorfields frontage is uniform with that facing the Pavement, and of the same length, with an equal number of shops on the ground floor. The return elevation at the north end, in Short-street, is also of the same character, and 58 ft. in depth, the depth of the building at the south end being 70 ft., and the whole containing a ground area of about 11,000 superficial feet. The entire number of shops on the ground floor in the several frontages and arcades will be thirty, whilst each of the upper floors will contain ten suites of offices, of four and five rooms each, there being forty-five apartments on each floor, or an aggregate on the several floors of 200 in number. In the centre of the building there is an open space or well-hole, carried up from the ground to the roof, in order to give light to different apartments.

The architects are Messrs. Joseph & Pearson, of Coleman-street, and, as already stated, the buildings are being erected by Mr. Cave, the owner, under the superintendence of Mr. Stocking as foreman. The estimated cost is from 45,000*l.* to 50,000*l.*

NEW STREET IN KENSINGTON.

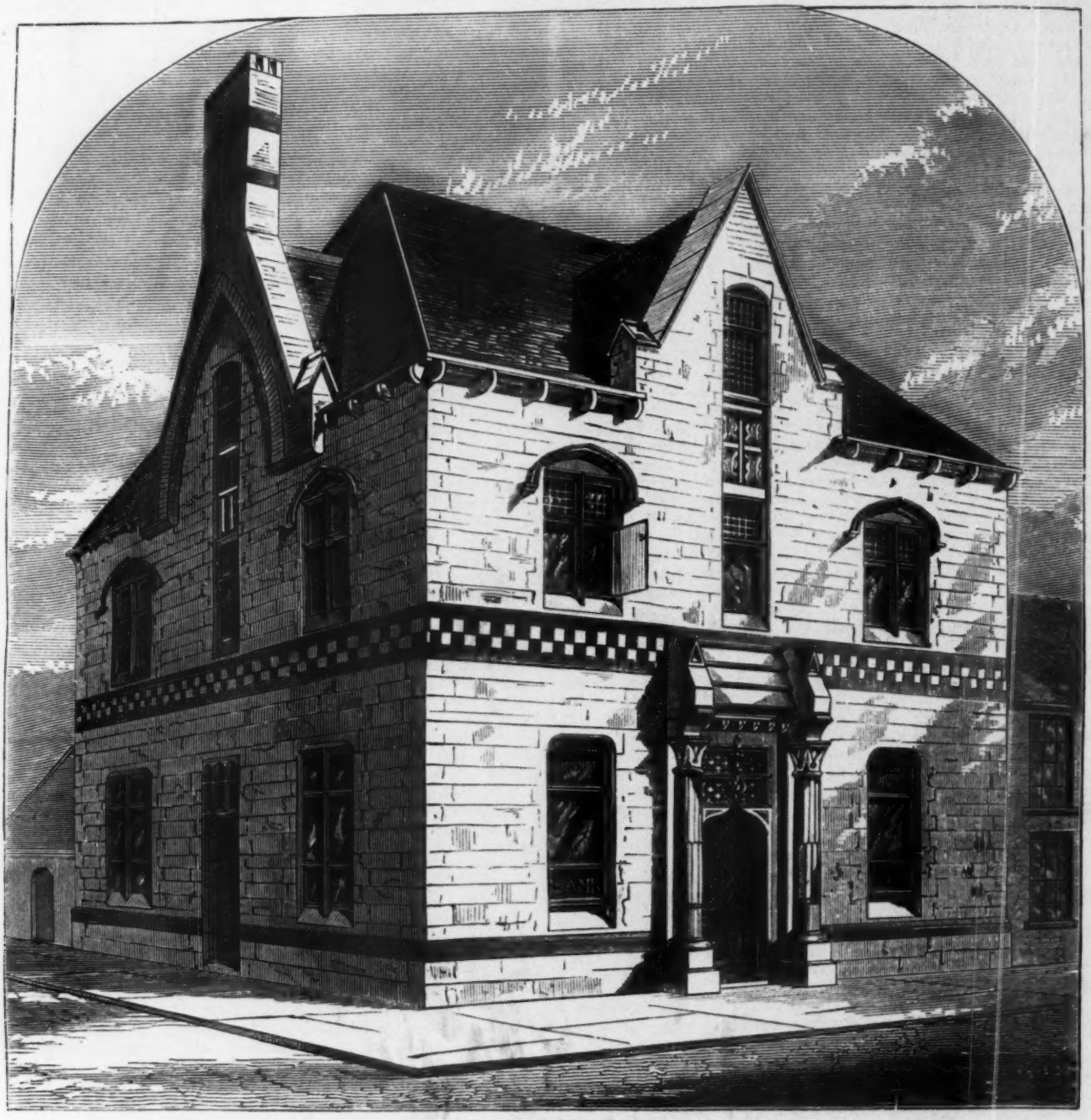
A street improvement of some importance is about to be effected in Kensington. In the arrangements for the erection of the new vicarage-house which has just been completed, the Kensington Vestry obtained possession of the old vicarage site, and a quantity of the adjoining grounds, near the junction of Church-street and Church-lane, for the purpose of constructing a new main thoroughfare northwards, in the direction of Notting-hill and Uxbridge-road. During the last few days the materials of the old vicarage-house have been sold by Messrs. Eversfield & Co., and the building is now in course of demolition, preparatory to the laying-out of the new thoroughfare, which is intended to be of considerable width, and will be the means of opening out an improved communication for vehicular traffic between High-street, Kensington, and the neighbourhood of Notting-hill-gate. A portion of the land which formed a portion of the vicarage-grounds, immediately adjoining the intended new thoroughfare, is, we understand, to be laid out for the erection of residences of a high class.

COMPETITIONS.

Wellingborough Second Grade Schools.—Upwards of thirty designs were sent in for the above. After careful consideration by the governors, the number was reduced to three, those by Mr. W. T. Brown, Mr. R. Speechly, and another, when the final selection was made in favour of Mr. Brown. The designs have been publicly exhibited in Wellingborough.

New Church of St. Philip, Trippett, Hull.—By invitation, a limited number of architects recently submitted designs in competition, under motto, for the above church, which is to seat 600 persons. The design marked "*Experto crede*" has been selected by the committee as the best, and it is to be carried into execution. Its authors are Messrs. W. Botterill & Son, of Hull, architects.

Trade Book.—The General Catalogue issued by the well-known engineers, Hayward Tyler & Co., of Upper Whitecross-street, is illustrated, and includes prices, so that it would be found useful by many of our readers.



NEW CUMBERLAND UNION BANK, HALTWHISTLE.—Mr. D. Birkett, Architect.

NEW CUMBERLAND UNION BANK, HALTWHISTLE.

This building, just erected, is one of the several branch establishments of the Cumberland Union Banking Company, whose head offices are in Carlisle. It occupies a fine business position in the very centre of Haltwhistle. The style of architecture adopted is a modification of Elizabethan, the materials being white local stone, with red base and string-courses. The building is admitted to be a great improvement in Haltwhistle.

The builders were Messrs. Turner & Hodgson, of Alston, Mr. Liddell, of Haltwhistle, doing the joiner's work and fittings, which are chiefly of pitch pine, mahogany, and oak. The architect was Mr. D. Birkett, of Carlisle. The cost was about 2,000*l*.

MONUMENT OF BISHOP RODOLPH VON SCHERENBERG, WÜRZBURG CATHEDRAL.

Of all the various kinds of monuments erected to commemorate the dead in the Middle Ages, there is perhaps none which lent itself so well to the display of the sculptor's skill as the upright effigy so common in the churches of Southern and Eastern Germany. The example which we illustrate in our present number is a remarkably noble and interesting one. It is to be seen in the Cathedral of Würzburg, in Bavaria, and represents one of the former Prince-Bishops, who for nearly eight centuries ruled the town and principality of Würzburg. The person here presented is Prince-Bishop Rodolph-von-Scherenberg. The monument is composed of red Salzburg marble, with the exception of the canopy and basement, which are of lithographic stone. The date of this fine work is 1495, and the sculptor was Tilman Rhiemenschneider, a native of the town, who is best known by his chief work, the monument of the Emperor Henry II. in the Cathedral of Bamberg. His works, however, are frequently to be met with in this part of Germany; those which we know best are, in addition to the two before named, the statues of the apostles round the columns of the Marienkapelle at Würzburg; the group of "The Fourteen Saints-Defenders" in the Hof-Spital-Kirche; the monument of Prince-Bishop L. von Bibra, in Würzburg Cathedral; the altar of the Holy Cross in St. James's Church, Rothenberg; a "Pieta," in the church at Heidingsfeld; and the "Last Judgment," over the doorway to the Charnel-chapel at Ochsenfurth.

The monument of Bishop von Scherenberg shows several peculiarities of ecclesiastical costume which are worthy of notice. The first of these is the singular fact that the mitre is not of the usual Gothic form, but of what we are in the habit of supposing to be the modern Roman form. It is very wide and large, and the two points are joined at the top. The mitre is adorned with a representation of the Annunciation. The chasuble is *quite plain*, which is very remarkable, and has no collar, so that the amice is very clearly seen above it. *Over* the chasuble, which is very large, and pointed in front, is a very peculiar ornament, similar in shape to the pallium worn by archbishops, only instead of being marked by five crosses, it has upon one arm the monogram "I.H.S."; on the other, the word "Maria"; and upon the straight piece which hangs down, the name "Killianus,"—in reference to St. Killian, an Irish monk who converted Würzburg to Christianity, and suffered martyrdom here. This singular pallium is seen upon all the old monuments of the Prince-Bishops of Würzburg, but we are unable to account for the existence of this singular ornament of ecclesiastical costume. Below the chasuble is seen the dalmatic; but as it is shown the same length as the tunic, the two vestments look like one. Below this is seen the alb, which is very long and perfectly plain. The crosier, which is very large, is held in the left hand, and has a veil attached to it. The right hand of the figure rests upon a large two-handed

MONUMENT OF BISHOP RODOLPH VON SCHERENBERG, WÜRZBURG CATHEDRAL: A.D. 1495.

sword. The sword and the crosier denote that the person represented had both spiritual and temporal jurisdiction. The face, which is undoubtedly a portrait, and a very life-like one, is slightly coloured, and the borders and fringes are gilded.

The other monument in the same cathedral, by Tilman Rhiemenschneider,—that, namely, to Bishop von Bibra,—dates from the year 1521; and though the outline is very similar to that of Bishop von Scherenberg, the detail is quite Renaissance in character.

THE PRESENT STATE OF BALLOONING.

Now and then we hear of ostensible flying-machines, to be, however, only disappointed. Of a more practical nature are the various experiments carried on with balloons; and the visit to Europe of the American aëronaut Lewis with a "manageable" balloon, *i.e.*, a balloon that may be steered, has once more directed attention to ballooning. An account by Herr Schueler, lieutenant of Engineers, on the present state of aërial navigation and the use of balloons for war purposes, recently published, will consequently be read with interest. We do not intend to enter as fully as the writer has done on the military aspect of the question, merely confining ourselves to his remarks as far as they are of interest to non-military readers.

The balloons of the present day, as used by Coxwell, the brothers Godard, and Professor Wiese, and such as have up to the present also been applied for war purposes, are large pear-shaped sacks, made of silk, rendered air-tight by layers of especially-prepared varnish, and which are filled with ordinary coal-gas or hydrogen-gas, and covered, with a view to greater resistance, by a network of ropes. The latter carries at the lower end of the balloon a ring, to which is suspended the car containing the aëronaut. At the top of the balloon is a valve regulated by a rope, below is a supply-pipe which may be closed. The car is provided with sand-bags as ballast, at least two grappling irons or anchors with ropes, a height-measuring barometer, and, as a means of escape, a parachute for each passenger. The latter is in the form of an umbrella, is made of strong taffety, opens out to a breadth of about 20 ft., and carries on cords a small car, which receives the aëronaut. The parachute opens out as it descends, and arrives slowly, and, in consequence of a pipe fixed in the centre, also at a uniform speed, at the ground.

If the total weight of such a balloon, when filled, is less than the volume of air displaced by it, it rises in accordance with the Archimedian principle. The power propelling the balloon upwards requires practically an excess of 3 per cent., so as to prevent, by a sufficient velocity of starting, its being thrown against houses or trees. The air becomes more rarefied the higher the balloon ascends, the gas in the balloon expanding in the same degree. The aëronaut, consequently, must, before starting, fill his balloon only two-thirds of its volume. Arrived at a certain height, the balloon is tightly expanded, without losing its rising tendency. If the supply-pipe is now closed, a pressure arises; if it is open, as is usually the case, the gas in excess escapes. In both cases, the balloon arrives finally at a height at which an equilibrium is established between the balloon and the volume of air displaced. It then ceases to ascend, but it continues to float up and down in slow, wave-like motions. If the aëronaut desires to rise still higher, he throws out ballast. If he wishes to descend, he opens the valve, part of the gas escapes, and the balloon falls, until, by throwing out ballast, it is again made to ascend. This proceeding may be continued as long as there is a sufficient store of gas and ballast, but of course not for very long, because, besides by opening the valve, loss takes place also by imperfect air-tightness and diffusion.

As long as no steering apparatus is invented, the balloon can be directed solely by seeking for corresponding air-currents, consequently by well-timed ascending or descending in contrary directions. It follows from this that aërial navigation, as long as no greater control over the movements of the balloon is obtained than has been done up to the present, will be of little practical use in warfare.

The author enters upon a history of the application of balloons for war purposes, into which, as has been observed already, it is not our intention to follow him closely. But the balloon became of such great practical use during the late Franco-German war, and especially in the siege of Paris, when it served to the besieged as the only practicable means for communicating with the outer world—though the latter, after several failures, had to abandon the attempt to reach the invested city by balloons—that we may be permitted to shortly describe the way in which they were utilised for postal intercourse. The close investment of Paris depriving the city of all other means of communicating with the provinces except by the air, the postmaster-general of Paris, M. Rampon, assisted by experienced aëronauts, such as Godard, father and son, Nadar, and others, organised already at the end of September a postal service by balloon on the largest scale. The balloons were made of a material similar to home-made linen, and called "percaline," saturated with linseed-oil varnish; they were provided with a network of tarred rope, a car, and the required apparatus, and had a contents of 70,000 cubic feet. Their cost was 4,000 francs (160*l.*) each, and they were manufactured at the rate of one every other day, a sufficient number of aëronauts being provided by the training institution especially established for the purpose. Each balloon was capable of carrying two or three persons, from 440 to 880 lb. of letters, and a few carrier pigeons, after the employment of dogs, trusting to their instinct for finding their homes, and loading them with despatches, had turned out a failure.

In this manner, in the time from September 23, 1870, to January 28, 1871, consequently, in about a hundred days, sixty-four balloons with 358 carrier pigeons were sent off. Of these balloons, 46 arrived safely, of which four in Belgium and one in Holland; ten were partly lost, *i.e.*, the balloon was lost, letters and crew being saved; eight were entirely lost, six falling into the hands of the enemy, two into the sea. Of the 358 carrier pigeons, altogether but fifty-six (of which only thirty proved effective) returned to Paris. This unfavourable result must be ascribed to the unusually severe winter, the continual discharges within the line of outposts, as well as to the fact that only a very limited number of really good and trained carrier pigeons was available in Paris. At first only small despatches could be entrusted to the pigeons, which were written on pieces of extremely fine taffeta, put into a quill, and tied to a tail feather, until M. Dragron succeeded in utilising his invention of producing microscopic photographs. He left for this purpose the capital, on November 21, 1870, by a balloon, and established at Tours a large *atelier* for microphotography. By means of his instruments he was enabled to reduce, within two seconds, twelve to sixteen printed folio pages, with from 4,000 to 5,000 despatches of twenty letters each, on a despatch leaf of skin paper, 1·3 in. by 2 in. large, and weighing 0·77 grain. Twenty of these skins were despatched by a carrier-pigeon in the manner described to the address of the central telegraph-office at Paris, where they were, after arrival, magnified 500 times on a white wall by means of the electric light, copied, and forwarded to the persons addressed.

Though the balloon was thus practically utilised by the besieged city, it has failed hitherto almost entirely as an engine of war, as the author points out. We learn from him that its application as such is practicable only in two forms: (1) as the captive balloon, either for reconnoitring and observation of the enemy, or as a station for photographic survey; (2) the freely-moving balloon, either as a means of communication, where the latter cannot be effected on the ground, or as a destructive engine of war, from which explosive materials are thrown. But to be perfectly safe and practicable, four conditions have to be fulfilled. It must, in the first place, be made of a material proof against all atmospheric influences. It must next be easy of transport and readily filled. It must carry at least two persons and the necessary apparatus. Finally, and most essentially, it must be provided with an efficient steering apparatus for directing and controlling its movements. The first of those conditions has not yet been fulfilled. The second has only partially been secured, while for war purposes the difficulty of filling the balloon whenever required has yet to be surmounted. The third condition has been successfully accomplished. As regards the final and essential condition, that of directing and controlling its movements, some progress has been made, as we, with the help of the writer, hope to be able to demonstrate.

In investigating the present state of aërial navigation and the perfection at which ballooning has attained, we are guided by two considerations. In the first place, we have to see how far it has been found practicable so to regulate the rising and falling of the balloon within a range of, say, 500 ft. to 1,000 ft. as to be able to dispense with the discharge of gas or ballast. Next—and this, as we have already pointed out, is a very important principle—what has been done in the direction of guiding or "navigating" the balloon in the air? The first of these conditions has been approached in a practical manner by two Frenchmen, MM. Meusnier and Joulie, who have thrown out suggestions which have already been practically tested. The first-named aëronaut proposes to close up the lower opening of the supply-hose of the balloon entirely, and to maintain a permanent super-pressure, thus preserving the volume of the balloon in all positions. To effect the rising or falling of the balloon by increasing or reducing respectively its specific weight, he introduces in the balloon an entirely independent space, or a second balloon, into which atmospheric air is either pumped or from which it is let out by a valve. The engineer Joulie, on the contrary, instead of carrying ballast, introduces into the car an iron reservoir, the sides of which are capable of resisting a pressure of from twenty to thirty atmospheres. In order to reduce the rising propensity of the balloon, gas is forced from the balloon into the reservoir, by means of a condensing pump. On the other hand, by opening a valve, the condensed gas is permitted to return into the balloon, and the latter rises again.

The second requirement, the means of guiding the balloon, is more difficult to provide. The first question that suggests itself is how to guide a freely-suspended balloon. Like a soap-bubble, it will follow each current of the atmospheric strata in which it may happen to be. The aëronaut does not feel even the highest wind, as long as it does not occur in gusts, and only notices the progress of the balloon by observing the earth's surface below him. To provide such a balloon with sails and steering apparatus would be perfectly useless.

But the case changes entirely if a velocity of its own, if ever so small, but independent of the surrounding air—or, in other words, steering power—is imparted to the floating apparatus. The rudder, if it may be so called, meets with resistance in the air, the latter exercising a pressure upon it. It follows from this that the manageableness of a balloon is intimately connected with its movement. It has lately been demonstrated, both theoretically by calculation and practically by experiment, that it is possible to propel as well as steer the balloon by means of a motor similar to a ship's screw. The following will show how it has been tried to solve the problem. The balloon of Dupuy de Lôme is constructed with an inner air-bag on Meusnier's principle; it has the form of a round body pointed at the bow and stern, a length of 131 ft., its largest cross-section being 47 ft. The principal balloon (*ballon porteur*) has two valves, the smaller one only one. The ends of the network surrounding the balloon are connected with two poles running in the direction of its length, to which the car is suspended. Above the latter, between it and the poles, the screw is fastened in a frame, and is moved by means of gearing from the car by hand. The screw has a diameter of 26 ft., an equal elevation, and four blades 3 ft. 3 in. wide. The blades consist of a wooden frame covered with silk taffety. In the car is a ventilator, connected with the small balloon by a hose. A sail is fastened at the farther end of the balloon, by which the latter is steered, and which is worked from the car by a running rope. The total volume of the balloon is 136,000 cubic feet; from this a tenth part, or 13,600 cubic feet, must be deducted for the bag, and there remain 122,400 cubic feet, which, if filled with coal-gas, represent a lifting-power of 5,623 lb. The total burden carried by the balloon, including the screw, six men for turning it, a helmsman, a captain, and an observer, is 5,463 lb., thus leaving the 3 per cent. of rising power required for the start. To prevent the wind from changing the form of the balloon, a certain excess of pressure is always maintained.

In a calm the balloon moves with a speed of about 7 ft. per second, equal to a force of about 200 foot-pounds. At a speed of twenty-one revolutions the screw attains the force exerted by four men, with two men as a shift. If there is no wind, or only a wind the velocity of which is less than 7 ft. per second, the balloon may be moved in any direction; in a strong wind, however, only a certain deviation is possible, decreasing with the force of the wind.

The air-bag is filled at starting with atmospheric air, the large balloon with ordinary gas. The higher the balloon rises, the less becomes the atmospheric pressure; consequently the pressure in the interior of the balloon must also be diminished. This is effected by allowing the air to escape from the bag, until, arrived at a certain height (2,822 ft.) it is quite empty. The balloon continues rising, its power exceeding the weight it carries by 3 per cent. The excess of pressure of the gas taking place now is compensated for by allowing escape at the valves. The rising will continue until the propelling force becomes equal to the burden, *i.e.*, if a height of 3,600 ft. is reached. If through any cause a decrease of the power to rise takes place, the apparatus begins to fall; in consequence of which the gas in the balloon becomes condensed. To keep it expanded, air must be introduced into the bag. If it is desired to ascend again, ballast must be thrown out.

The first trial with such a balloon took place on February 12, 1872, during a strong gale from the south-west. An ordinary compass was fixed in the car for the helmsman; a mariner's compass served for observing the course. The report of the trial was satisfactory. The balloon travelled sixty-six English miles in two hours.

Herr Hänlein, of Mainz, constructed a balloon on the same principle; only he employed, instead of hand-power, a gas-engine by Lenoir. Full particulars of his balloon have already appeared in these columns,* but its principal features may be recalled. The Lenoir engine requires no boiler, no water for feeding the latter, and no fuel; it moves the piston in the cylinder by means of a mixture of air and hydrogen-gas, exploded by an electric spark. The spark is produced by an induction apparatus. Hänlein's machine has four such cylinders, of together 4 horse-power, weighs 440 lb., and is made of cast steel, with the exception of the cylinders, which are of copper. It is fed with gas from the balloon, the ascending power of which is thereby not affected. The cooling of the cylinders, which soon get hot, is effected by 33 gallons of water, taken on one side from the cylinders by a pump moved by the machine, conducted round the car over fine wirework, and thus replenishing continually the heated water.

The model tried in 1871 at Mainz answered all requirements. Unfortunately, the larger balloon, constructed on the same principles, was totally destroyed a few years ago, during a storm, at Brünn (Moravia), and want of means has hitherto prevented Herr Hänlein from attempting the construction of another one. It might be mentioned that the idea of a fish-bellied balloon, provided with screw and rudder, is not the invention of M. de Lome, but was carried into practical effect several times before him. The idea made its appearance in Germany, already twenty-five years ago, and in 1852 was turned to practical use in France, by M. Giffard.

The new world also has contributed to the efforts of solving the difficult problem of aërial navigation. Mr. Rufus Porter built a model of the form of a cigar, 27 ft. long and 4 ft. 6 in. broad, and provided with an ordinary small steam-engine moving two ships' screws. It was steered by a four-bladed rudder. The balloon was made of varnished linen, its form being preserved from inside by twelve poles. The trials were so successful that Porter built a balloon of large dimensions. Everything was ready for filling when it turned out that the varnish had destroyed the linen to such a degree as to render it incapable of resisting the pressure from within. Mr. Mariotte, of San Francisco, also constructed a balloon, 38 ft. long and 11 ft. broad, which was provided on both sides with sails, and moved by a small steam-engine. The model turned out so successful that an aërial steam navigation company was started at once. Although the company intended to have a large balloon constructed after Porter's model, and the latter was said to have discovered a more suitable varnish, nothing further has transpired respecting them. It seems hardly possible that his invention will stand a practical test, since the placing of a steam-engine directly under a balloon filled with gas must be extremely dangerous.

One more construction, that of Dr. Andrews, remains to be mentioned, if only on account of its novelty; it differs entirely in its principle of propulsion from all former designs. Dr. Andrews's aërial machine consists of three cylindrical balloons, pointed at the bow, each 98 ft. long, and of a diameter of 20 ft., which are fastened together horizontally, side by side, thus forming a raft. This raft is provided with a rudder and a car, on the floor of which a pair of rails is fastened, upon which runs a wagon carrying the ballast. If the wagon is pushed towards the stern of the car, the effect is to place the whole apparatus at an angle of from ten to twenty degrees towards the horizon. On throwing out ballast, the balloon, in rising, is propelled, because it offers to the air an oblique plane. Arrived at a certain height, gas is allowed to escape, and the apparatus, like a hawk with steadily extended wings, shoots forward while falling. The first trial is said to have been extremely successful, but nothing further has become known.

From what has been stated above, the conclusion must be drawn that the problem of aërial navigation is still in its experimental stage, that no results enabling us to turn it to practical uses have been attained, although some considerable progress has been made. In the first place, it has been demonstrated that movement, and consequently steering power, may be imparted to the balloon; and, secondly, it has been shown that the balloon may be made to rise and fall without loss of ballast and gas. If we ask ourselves whether a solution of the problem of aërial navigation is possible in our present state of experience, the answer must be doubtful. Ballooning has not yet got beyond its infancy; profiting, however, by past experience, it may be possible to construct a means of movement of the greatest value in certain exceptional cases. The balloon will play an important part only when it has been so far perfected as to enable us to steer it like a ship, even in the most unfavourable winds, in all directions. As long as this problem is not thoroughly solved, the balloon will, at best, only remain what it is—a makeshift. This does not prevent, however, its being employed, as in the Franco-German war, as a means of communication between an invested fortress and the army in the field, in which capacity it may be made to perform important services. But to use it even for this purpose profitably, it is absolutely necessary, not only to construct practicable balloons, but to train up a number of efficient aëronauts.

* See *Builder*, vol. xxxiv., p. 117.

GRANITE BUILDINGS, ABERDEEN AND LONDON.

Sir,—In your description of the granite buildings of Aberdeen (p. 945), I observe that after remarking upon their generally favourable appearance, you notice that there is little polished work to be seen,—a mode of treatment which you remind your readers has been recommended for granite buildings in London. The right thing in the right place is an important point, if not the essence, in all good architecture. Aberdeen is by no means such a smoky city as London, nor are there manufactories as in London, producing gases which are most destructive to ordinary freestone buildings. If we could transplant the clear pure white granite buildings of Aberdeen to London, they would be so besmirched in six months with fuliginous deposit from being unpolished that their owners would not recognise them. There is much axe-faced granite in the City to illustrate this defect, just as there is much polished work to show the necessity of that process. Unpolished granite, in short, is no better in appearance as a building-stone in London than Portland or other free stone. Like marble, the beauty of granite is only revealed by polishing. Then,—and this is more important still as a London question,—it is the hard polished surface of granite alone, that is capable of resisting the damaging effect of the sooty atmosphere, and the destructive power of hydrochloric and other gases, which are so ruinous to freestone buildings. There need be no fear of disagreeable glare or refraction from a polished surface. A glance at the Crystal Palace at Sydenham or our plate-glass shop-fronts will sufficiently convince any one of this.

Of course, polished granite must be allied with an appropriate style of architecture in which carving—not to be thought of in granite building—is unnecessary. Thus Gothic and Renaissance are out of the question, but Byzantine, Romanesque, and Saracenic, would require very few modifications to adapt them to the purpose. Possibly, in the course of time, a new and original style might be evolved.

A very pleasing effect might be produced by very simple means, because granite varies so much in colour. Rose colour from Mull; red from Peterhead; gray and blue from Dalbeattie; white from Kemnay, near Aberdeen, and from Cheesewring, in Wales; black from Castlewellan, in Ireland; and, according to Dr. Borlase, a yellow variety from Wales. Using polished white granite for the general surface, and with such a variety of tints applied with judgment, to bases, strings, jambs, and cornices, it is clear that a complete and fairly satisfactory façade could be constructed without any ornament whatever, the mere polished material giving a certain sumptuous character. Of course, a first-class structure would require decoration, which to be appropriate and characteristic would take one or other or a combination of the following forms:—

(1) Flat Geometric inlay of the different colours of granite, or of encaustic tiles, or tiles of coloured glass; (2) incised work gilt,—which, I imagine, would be in perfect harmony with the general polished surface; and (3) sunk ornament (*intaglio relevato*), executed with the aid of the steam sand-blast, which cuts into the hardest materials,—corundum, glass, &c.,—with wonderful rapidity. An ornamental marble panel exhibited by Mr. Newton when reading his paper on this discovery at the Society of Arts was cut through in thirty minutes with a pressure of only 60 lb. steam. Pressure, however, up to 400 lb. can be used with proportionately increased cutting-power. To complete the resources of decoration, I may mention five figures in friezes and panels of mosaic.

It will be observed that not only the façade generally, but all the details proposed above would be flat. There would be no nooks and crannies to collect soot and dirt to be converted into mud and deposited with despoiling effect upon the surface of a building by every shower of rain. On the contrary, the work proposed would be, as far as possible, self-cleansing, which, I think, may be said to be an architectural desideratum in London, with its but too liberal allowance of fog, smoke, and rain. Architectural effect would be mainly due to colour, the very thing we want in this dull climate of ours, and it is clear that the richest and most sumptuous effect would be at our command.

Moreover, perfect durability,—the destructive gases of London air notwithstanding,—would distinguish the work. I yield to no one in admiration of the beauty of Bath, Portland, and other freestone buildings, with their very effective carvings, but I think that if we will let experience teach us they should, for the future, be relegated to the country. If we examine a few London buildings, what do we see? There is not an ancient stone existing of Henry VII.'s Chapel, nor of the Temple Church, nor scarcely of the Abbey or Lambeth Palace; and of modern buildings, which we have actually seen erected, the Houses of Parliament, Buckingham Palace, the Buxton Memorial, and many others, have already been restored.

Then, how utterly does the smoke of London ruin the architectural effect of all freestone buildings, owing to the soft absorbent nature of the material, and the carvings forming so many traps for catching and accumulating soot and dirt. The walls of the new Law Courts are beautifully white as they rise under the hands of the masons, but those parts that have been finished only a few months are almost black with fuliginous deposit. It is no exaggeration of language to say of the Strand front of Somerset House that it is absolutely black.

As to extra cost, it does not appear to me, after as careful an investigation as is possible under the circumstances, that the fear of this need stand in the way of realising the suggestion, which I should scarcely venture to make if I did not know that many members of the profession admit that some reform is very desirable.

I have offers from Aberdeen for the delivery in London of granite blocks of the usual size for ashlar facing, and 6 in. thick, at 1s. 6d. per foot super., and I have tenders for polishing at 3s. 6d. per foot super.; *i.e.*, 5s. for material and polishing.

Now, in your journal there is a detailed description of the new Post-office,—a somewhat rich freestone building,—giving dimensions and cost; and I am able, therefore, with sufficient accuracy for a comparative estimate, to conclude that the two architectural façades cost 35s. per foot super. Thus, then, my granite and polishing costing 5s., I have 30s. in hand for carriage of material in London, for decorative work, hoisting, scaffolding, setting, architect's commission, and contractor's profit, and I think that

I am not unreasonably sanguine in believing that 30s. per foot,—thousands of which would be absolutely plain,—would be ample for the expenses named.

In conclusion, I think that some distinction would accrue to the architect who should first present to the practical English public such a building as I have attempted to sketch. I cannot help thinking,—and I have thought about the matter a good deal,—that it would be the right thing in the right place. H. T.

ARCHAIC GREEK ART.

On Saturday evening, the 13th inst., Mr. C. T. Newton, C.B., delivered a lecture at the College for Men and Women, 29, Queen-square, Bloomsbury, on "Archaic Greek Art." The chair was taken by the Hon. Auberon Herbert, and there was a large attendance.

Mr. Newton said that some years ago he gave a lecture at that institution on the same subject he had now chosen, but its conditions had been changed very materially since, by reason of many recent discoveries, especially those at Cyprus and also those at Mycenæ by Dr. Schliemann. He meant by "Archaic Greek art" that which seemed ancient to the ancients themselves; that which Herodotus would have thought old, living in the century immediately after the Persian War. If they took the age of Phidias as representing the perfection of Greek art, it was synonymous with the age of Pericles, and it was the latter half of that century, 450 to 400 B.C., which represented the time of Phidias and the full perfection and bloom of maturity of the Greek art, therefore before that date might be in some sense closed as archaic; but as they approached the year 450 B.C., the art improved very much, and the quaintness, the stiffness, and the shortcomings in the sculpture disappeared, and became very near to a perfect style. He was going to talk to them about the middle archaic art, which fell somewhere between the first Olympiads and the year 540 B.C. With regard to the period before the Olympiads, knowledge had certainly been given to them by those wonderful discoveries of Dr. Schliemann at Mycenæ, which had sent a ray of electric light into the gloom of the heroic age. How far back Greek art reached was a question very difficult to answer, and which he was afraid no living person could. He had exhibited before them two specimens of sculpture, both of which were in the British Museum, which he brought from Branchidæ, the site of the Temple of Apollo, near Miletus, and these were a lion and a sphinx. They were not now properly exhibited in the British Museum, and in the course of next year there was to be a room built which would be especially set apart to archaic sculpture. The great and peculiar interest of these very early specimens of Greek sculpture was that they bore inscriptions to the effect that they were dedicated by certain persons to Apollo. In one of these figures they had the earliest portrait statue produced by the Greek chisel, but the head being broken off they had not the means of knowing how far successful the attempt was as to likeness, and probably it was very small. The importance of the evidence which these inscriptions gave to archæologists was very great, not merely that they were offerings to Apollo, but because they gave the ground for fixing the date of the sculptures themselves. One of the heads exhibited came from the Temple of Diana at Ephesus, the ruins of which were discussed some time ago by Mr. Wood, who, after working hard, came across the very earliest foundations of the first temple, where he found a quantity of sculpture which clearly belonged to the earliest temple, which was built in the time of Crœsus, who, Herodotus told them, contributed columns to it. This head was not carved in round, by which term he meant the head would be free from, and not attached in relief. In this early temple there were found columns, with relief sculptured round them. With reference to the fictile vases and the art of drawing and painting upon baked clay, that class of antiquities was one of the most valuable for archæologists, because it underwent very little change in the earth. The style which was contemporary with the remains before them was now called Asiatic. The style of decoration in which sphinxes and other monsters were depicted as careering along was characteristic of this age. The greater part of the vases that were discovered had no inscriptions upon them, and the first indication of writing upon them was all the more precious from its exceeding rarity. One of the warriors from Camirus represented two warriors, Menelaus and Hector, fighting, and this was one of the earliest instances of dramatic action as a subject for painting combined with writing. From that time forth, as they traced the history of fictile art, they found numerous specimens of that style coming in, and it afterwards purified itself, and they got a plain background. As to the general style to be observed in the sculpture from Branchidæ and Ephesus, there were certain peculiarities about it. To begin with the seated figures, they repelled at first, owing to there being about them a certain woodenness combined with dignity of repose, which was their characteristic. In point of fact, these figures were part of the chairs upon which they were seated, the artists in the earlier specimens never being able to free the statue from its support. As it could not be determined where the human form began and the chair ended, it gave a lifelessness to the whole appearance. So, too, with regard to the sculpture of the hair, it was not natural, nor were the eyes properly sculptured, they generally having a fixed stare. As to the testimony of early Greek art, they had a number of scattered hints regarding the development of Greek art in Pliny, which marked the transition from utter rudeness to those great changes which were subsequently brought about. Respecting the characteristics of this period, taking it altogether it was the most cheering and encouraging of any in the history of human civilisation. He saw the Hellenic races asserting their unity in such institutions as the Olympian games, and he beheld them spreading with a vigour, they being great instruments of civilisation. The same period showed a greater development of literature, while old epic poetry disappeared and was succeeded by the rich lyrical poetry, of which they unfortunately possessed but a few fragments. Lastly, it was a period when Greek liberty had its hardest struggle, coming out triumphant at the end of the Persian war. He would ask them, whenever they read the history of that period, to connect it with the monuments that were to be found at the British Museum, and by that means they would enjoy the literature much more, and would find the monuments more useful than they were at present. In his next and concluding lecture he would deal with the problem of Mycenæ in connexion with certain other remains which had been found elsewhere, and which seemed to be of the same period or a little later.

The Hon. Auberon Herbert, in proposing a vote of thanks to the lecturer, said they owed a very great deal to those teachers at the present day who were leading them to the knowledge of art in this country. Their very great ignorance of art had been, he thought, a great loss to them as a nation; it was perhaps the simplest and widest of man's happiness in every section of society which might be derived from the pursuit of art, and nothing had been helping them more in its cultivation than public lectures on its history. He did not think the English as a nation were inartistic, though he knew it was generally supposed so by Continental nations, who, however, fully believed that the English were not utterly wanting in the recognition of that which was beautiful. Although he admitted as regarded art-culture that they were behind other countries, yet this one great quality of beauty belonged to them, and if they were true to themselves they would be able to recognise and reproduce that beauty more successfully than other nations. The strong love of the beautiful was exemplified in the way Englishmen took long walks into the country in order to enjoy fine scenery, and also by the number of schools of landscape-painting which were now so prevalent, showing that they were beginning at the right end for the love and enjoyment of all that was beautiful in nature. If they were simple in their lives, this would in time bear its own fruit. He did not believe that a nation ever could really reproduce what was beautiful, or that it could be artistic in the highest sense if it was not to a certain extent occupied with high and simple thoughts. If they were altogether under the influence of passing fashions, if they fell into the habit of copying, or became conventional, he did not believe they could ever achieve anything great in the reproduction of beauty; but if they were content to be true to themselves and follow out the line of their own existence, then he believed that gradually they would show themselves not altogether degenerate successors of those who had produced all that was beautiful in art.

WANDERINGS AND QUESTIONINGS IN ARCHITECTURE AND ART.

SENTIMENTS ON WINDOWS.

The opening by which the most glorious of material guests,—light,—enters our abodes is their most interesting feature, and should be the chief vehicle of beauty and expression. Its importance in the Gothic system I need not assert: the long walls of glazed tracery of the Mediæval cathedrals were triumphs of structural art and science, while the great, brilliantly-painted wheel-windows of the transept ends, and the colossal chancel windows were, more especially as interior features, among the most glorious works of man on the earth. The window is equally important in our Anglo-Classic style, and should be the central feature, indeed, round which as its nucleus all its other elements should grow, and with which they should be brought into harmony. They must be made to give place to the window, not the window to them; and no style could suffer in accommodating itself to the reception of the window; a feature that is susceptible of such refined and elevated treatment as to render it a worthy element of the purest and loftiest development of architecture. No basrelief or niche could be as effective in doing away with deadness, flatness, or the appearance of unreality in a wall, and investing it with human interest, as the window. The window admits the mind of the observer, as it were, to the human life within; which suggests the associations that, in southern climates, attach to it, of romance, Provençal song, and minstrelsy. Important as the eye is to the human face, the chief index, as the poet Shenstone expresses it, of temper, understanding, health, and love, it is scarcely more important to the countenance than the window is to the English character of a building.

The window is a feature the beauty of which nature has more to do with than with that of any other. She bestows the charm of light and shade everywhere else, but on the window she projects herself. Through its medium sun and sky, and all objects around, contribute to the adornment of architecture, and give it a species of beauty to which there is nothing analogous in the other arts of form. Windows, by their reflected rays, and ever-changing moods, seem possessed of intelligence and feeling, that invest the building they adorn with the interest of a living creature. I have always felt that there was no better way of dignifying an entrance doorway of any kind than by marrying it to the window, and giving it, so to say, a pair of crystal wings.

The window is susceptible of the minutest sculptural decoration, applied to jambs or reveals, and cannot be invested with too much dignity. The chief employment of precious marbles, or, in humbler buildings, of coloured and moulded brick, should be to intensify the artistic life and beauty of the window.

Though windows have no business under a portico, as they, so placed, convict it of obstructing the light, yet they will harmonise with, and prove themselves worthy of, any situation, however classical. The greatest mistake made by the architects of the Neo-Greek period was the supposing the window was too homely for introduction to Greek architecture, a mistake to which we owe a great number of buildings which may be said to be stone-blind, and which are as deficient of architectural beauty, by omission of the windows, as blind people must necessarily be of human beauty.

I mention this because, though the window, in some branches of architecture, more particularly, I think, the commercial branch, is now fully acknowledged as an architectural feature, fully admitted with all honours into decorative architecture, and the isolated "hole-in-the-wall" character of windows is disappearing, there is still proneness among architects to omit the window as unworthy of a place in grand architecture, and to bring in the light from above. This is, of course, needful in some buildings.

St. George's Hall, Liverpool, which is planned for the exclusion of the window on the principal fronts, may be said to have an English side and a Greek side. The latter repudiates the window, which has taken refuge at the less classic side of the building, the west or back. Now, such treatment of the window is equivalent to the assertion that Græco-Roman architecture is unfit for our uses, and that such pure phase of architecture has no business in this country. But the west side of the same building proves that windows on the east, or Greek side, would

have Anglicised it, and increased its beauty and harmony. The west windows, it is true, are within a portico or loggia, but it is roofless. The windows flanking the portico of the west front of St. Paul's Cathedral, while they stamp it as English, and add to the interest of the entire façade, detract nothing from its columnar grandeur. In that front, as in many others, the windows have a spiritualising power, and are one of the chief sources of beauty.

Our plate glass gives us, I conceive, an immense advantage over ancient architects. Had Pericles possessed such a material it would, perhaps, have modified the design of the Parthenon. The Roman Emperors Augustus and Hadrian, I fancy, would have given a king's ransom for a few of our colossal sheets of it. With such a beautiful substance an architect of discernment could get light almost anywhere through a façade, without disfiguring it, even if compelled to pierce its frieze and make glass metopes. With such a substance mezzanine windows become ornamental panels. It might be introduced in many places for which it has never been dreamt of,—the background of a niche, square on plan, for instance, by which the statue would be seen from within as well as from without.

The opening through which light is admitted one would expect generally to assume more elegant, and a greater variety of forms, in our buildings than it does; and it cannot but appear strange that the circle, so beautiful in churches, is not chosen for palaces and mansions, and wherever beauty is an object. A straight-sided and square-bottomed opening, for egress and ingress of human beings, is necessary. But light does not require this, and its ethereal nature dictates the most simple and elegant form of opening, while the circle or semicircle seems the most natural form through which to observe the landscape. Theoretically the circle is the true form for a window as it is of a picture; for it is a circular portion of nature's face we always see.

One of the best features of the Gothic style is that, in the formation of the window, fancy is at liberty to run riot and revel to its full content. But the Classic window may be as beautiful, if not so fanciful, as the Gothic. It has, I conceive, been kept in its infancy by the difficulty of designing geometric tracery without sliding into Gothic character, and by a prevailing impression that tracery is exclusively Gothic. But, save cusping, geometric tracery is surely at home anywhere. The Saracenic architects filled in their lattices with a beautiful maze of such tracery, which is applicable to any style, and might be executed by perforating the material. The Sicilian and Venetian Gothic windows offer valuable hints for the treatment of ours. But there are good lessons to be learned on this subject at home from the square-headed Tudor and Elizabethan windows, and bay and oriel windows. They suggest the kind of filling up that I contend for; and that division into two or three parts by mullions or slender shafts which, I believe, are indispensable features, the apple of the eye of any window, could not be out of keeping with the purest Classic.

It certainly adds nothing to the beauty of an exterior, whether palace or cottage, to form the window of one sheet of glass, or of very large squares; and it as certainly adds nothing to the pleasantness of a sitting-room, but, on the contrary, gives it a very uncomfortable air. A space of 24 in. between two mullions, or the width of a person standing opposite to it, seems sufficient. I believe the larger sheets of plate-glass would be employed to more ornamental purpose in mirrors, and in glass cases, shop-fronts, &c.

But if vertical divisions were inadmissible, there is nothing to forbid a beautiful tracery head, either in a square or a round-headed window. Nor is there any reason why windows should not be different in design from each other, as in Gothic, merely preserving a family resemblance; nor why stained glass should not be employed in their decoration. It would not be necessary that every window in a room, or that the whole of a window, should be ornamented; that would depend entirely upon circumstances. Supposing, for instance, there were windows on one side of a room, and central folding-doors on the opposite one, the middle window might be a painted one; or a Venetian window of plain glass might come in between two painted ones, which would have the desirable effect of concentrating the main light. Or, again, the heads of arched windows might be filled in with a differently-coloured glass; or else the narrow lateral openings of a Venetian window might have painted, and the central one plain, glass. It should be borne in mind that, in a country residence generally, perfectly plain windows, looking out from the drawing or dining room, are so many fine, ever-changing landscapes, by a *very eminent artist*.

I have already referred to the Elizabethan bay and oriel windows, as furnishing hints: but since they administer to pleasure and cheerfulness, by admitting a more extended view from the house, and a gleam of sunshine into apartments in positions in which it would be impossible otherwise to obtain it, the style would be deficient in scope if it could not clothe them with appropriate beauty. But these and all kinds of projecting windows,—circular, polygonal, triangular, or mixed,—may be made as agreeable and harmonious as a portico or porch.

A word about shop windows: the chief defect of these is that they give us rather too much of a good thing under the circumstances, with heavy masonic features above them. Some large fronts I have noticed in our large towns are one entire window, the entrance-door being merely a hinged panel in the centre of the length.

There is another species of window, the hypæthral, by which I mean all kinds of lights piercing a building or apartment from above, horizontal, inclined, curvilinear, vertical; and, notwithstanding what I have said against the omission of wall-windows, I think these hypæthral ones might be advantageously resorted to for schools and collegiate buildings, and even for city churches, for their exclusion of noise from without. The Madeleine at Paris offers an admirable example of the fine effect attainable by this mode of lighting, in which the glazed aperture is susceptible of a great variety of beautiful forms, dispositions, and kinds of embellishment; and of being rendered the chief feature in any species of ceiling, whether flat, cylindrical, spherical, or mixed, or formed on the clearstory principle of the Greeks. As regards interior effect, this mode of admitting light aided by stained glass leaves nothing to be desired.

SAMUEL HUGGINS.

RECENT DISCOVERIES: ST. ALBAN'S.

FROM Mr. J. Chapple's paper,* entitled "A few Remarks on the Recent Discoveries in and about St. Alban's Abbey," we extract what he said as to:—

1. *The South-west Angle of the Buildings.*—In anticipation of the repairs to the nave, it became necessary to excavate the earth on the outside of the south wall, in order to ascertain the state of the foundations and the amount of resistance which they were likely to offer in abutment to the shoring. The bases and parts of the shafts of five responds were discovered built against the south wall, showing the position of the forensic or outer parlour. These bases have been preserved, and although new buttresses are now being erected in immediate proximity, every facility will be given for examination. The foundations of the south-western tower, which was commenced about A.D. 1208, by Abbot John de Cella, have been laid open. It appears that John de Cella's successor, Trumpington, although he continued the building of the nave, stopped short in the erection of the western towers. The original scheme for the south-west tower was only carried so far as putting in foundations, and completion in an altered form of the piers and arch leading from the tower to the south aisle of the nave. This arch was afterwards made use of as an entrance from the nave to the forensic parlour. The height where the one abbot ceased to build and his successor recommenced is clearly defined in the work.

2. *The Narthex and West Porch.* — The Restoration Committee has decided to expose the buried works of Abbot John de Cella to view. Therefore the western bay of the nave and aisles will be excavated to a depth of about 3 ft., and steps put to lead to the higher level. The floor of the great western porch, where the sedilia and bases, for a period of four centuries, have been buried, will also be lowered. John de Cella's scheme was a grand and comprehensive one,—no less than the rebuilding of the west front, with three porches and two great towers; also the rebuilding of the nave and aisles. For this purpose the Norman work of Paul de Caen, at the west end, was entirely destroyed except the foundations, and the rebuilding commenced in the Early English style. It had been the intention of John de Cella to vault this portion of the building, and add flying buttresses to support the walls, but the work ceased under his hands, and his successor completed in a less costly way what had been so grandly designed, and up to a certain point so artistically executed.

3. *The Nave Floor.*—In excavating the nave floor for examination of foundations of the south piers, two mutilated stone coffins were found, the upper edges of which were at a depth of 3 ft. from the surface. Fragments of tiles were also turned up occasionally, showing the patterns used in that locality.

4. *The Chapter-house.*—In August last, an important discovery was made while laying down gas-mains in the public way on the south side of the south transept. A trench was excavated from east to west throughout the whole length of the site of the destroyed Norman chapter-house. On the north side of this building, against the south wall of the slype or locutory, was found a stone seat, corresponding in position to a similar one in the slype. The north-west angle respond of the chapter-house was also laid bare. The west wall was followed for about 7 ft., and another respond found at an interval of 4 ft. 6 in. from the first mentioned. The architecture is elaborate, with zig-zag beaded mouldings. The internal length of the chapter-house was 95 ft.; the width must remain unknown until excavations can be made in the shrubbery adjoining. No doubt a perfect mine of wealth lies under the surface. When the destruction of the buildings took place, the *débris* covered the ground to a depth of several feet; from this came about the fortunate preservation of foundations, with moulded bases and parts of columns. This chapter-house, with the slype adjoining, was, according to Dr. Nicholson, the work of Robert de Gorham, eighteenth abbot (1151-66).

5. *The De la Mare Brass.*—In the Dom Kirche in Lübeck is a brass of about twice the size of that to the memory of Abbot Thomas de la Mare, now in the Wallingford Chantry, between the nave and aisle of the choir at St. Alban's. In the lower border is a representation of the legend of St. Dunstan, and the similarity of the engraving generally to the one here is very striking. It has been stated that the artist was lent from Bruges, and that he travelled to Lübeck and to St. Alban's to engrave these brasses.

A paper, by the Rev. H. Fowler, on "The Origin of the Cell of Tynemouth, and its Second Founder," was followed by one by Mr. R. R. Lloyd on "A Mediæval Pilgrimage to St. Alban's Abbey."

* Read at a meeting of the St. Alban's Architectural and Archæological Society, on the 11th instant.

A SCHEME OF CATHEDRAL RESTORATION.

AT the meeting of the St. Alban's Architectural and Archæological Society already mentioned,

The Rev. O. W. Davys read a paper called "A Glance at the Restoration Works in St. Alban's Cathedral, finished (1), in progress (2), and to come (3)."

Of this we give the essence.

1. *Works finished.*—At a cost of some 20,000*l.* the church has been made structurally sound in its future cathedral portion, as far west as the ancient rood-screen. The roofs of presbytery and transepts have still to be raised to their ancient pitch, but this can be done at any time, without injury to the completed work within. The lady-chapel is nearly ready to be thrown open to the rest of the structure, whenever the pathway, which has hitherto cut it off, can be carried round the outside of the building. On the enthronement of the bishop a throne and choir fittings had to be provided. The temporary stalls are placed upon the ancient lines. When permanent stalls can be provided (which I trust may speedily be done), their form and appropriation will have to be discussed. Perhaps as canopies are so expensive it might be sufficient to provide them for the return stalls, and those terminating the principal lines of the western piers of the tower, only using arcading behind the others. When the nave is restored to the parishioners as their parish church, I trust that all appropriations of stalls, except to the members of the cathedral and choral establishment, may cease. Also, that stalls at any time left unoccupied by those in surplices may be used, as is nearly the universal custom in cathedrals, by male worshippers only.

2. *Works in Progress.*—The tide of repair has now left the eastern portion of the building, and

gone to the nave. The Early English bays of William de Trumpington on the south side were pronounced some time ago to be in a dangerous condition, owing in large part to the loss of those natural buttresses which the cloister and adjacent buildings had originally provided. The work to this part of the nave is swallowing up funds which were urgently needed to advance the cathedral arrangements. There is, however, no alternative but to save in its integrity the magnificent nave, and restore it to serve as the church of the parishioners of the cathedral parish. No one who attended the services which till recently were held in that nave, failed to be impressed with the fact that of all great naves this is one of the best to see and hear in. I trust nothing may be done which may hereafter be open to question, or may preclude the idea of the restoration of such of the buildings adjacent to the nave as may be practicable for the use of the cathedral. I trust, for instance, that windows will not be inserted where none existed before. For, however we may admire the generosity of its talented proposer, we should then leave the principle of repair, which has hitherto guided us, and lay ourselves open to attack from the anti-restoration party. Buildings, for the use of persons, whether members of a college or otherwise, required for the services of the cathedral, will have to be provided somewhere, and it will be injudicious to exclude from such a use the ancient, if not the only available site.

3. *Works to come.*—The works to come are of a character so important that we can hardly hope to accomplish them during this generation. Cathedrals took generations to build, and even in these days of hurry the longest of them may well take generations completely to restore. It seems to be our duty to work on by the guidance of a perfect plan, making every step a step on the way towards the completion of that group of designs, of which we have evidence in the building and its surroundings. We have in the present church the designs of the great architects of Abbots Paul, John de Cella, and (say) John de Hertford, and of the lady-chapel of Hugo de Eversden. The first designed and apparently finished a vast Norman church, the largest in England; the second, as many Early English architects did, endeavoured to add to a Norman nave a western front of extraordinary beauty; the third, as was the case elsewhere, planned the removal of the Norman apse and sanctuary, and the substitution of richer work of his own day. To complete St. Alban's, then, you must repair and complete the designs of these architects. The work of the first is now nearly all satisfactorily repaired. The work of the third needs further external reparation. As for the western front of the second,—one of the most remarkable designs in the kingdom,—we can hardly hope at present to get beyond the three western portals,—a feature common in France, but, I believe, peculiar to St. Alban's in England. I have heard it said, that though St. Alban's, from its vast size, is a very grand building, its form is remarkably ugly. We certainly have not the symmetrical beauty here of Wells or Lichfield, with three beautifully-balanced towers and spires respectively. Neither have we another Salisbury, the work generally of one architect, though crowned with the matchless spire of another. We have a building more like Winchester, vast, long, and unrelieved; though our tower is the higher of the two, and our site is on a hill side, not deep in a valley. But those who call St. Alban's ugly must remember that we have now to look upon a very incomplete building, with sunken roofs, the wreck of a west front, and a presbytery,—the lofty clearstory of which looks bare and gaunt without its flying buttresses. With restored roofs, and a completed west front, and these additions eastward, we should have a cathedral second to none in grandeur, dignity, and beauty. I think, too, I should vote for the restoration of the short lead spire peculiar to this district which till lately crowned the central tower: we have plenty of length at St. Alban's, what we want is proportionate height, and we should make every effort to obtain it. It seems the province of an architectural society to sketch out suggestions thus, and present them for discussion, so as to lay down a plan which may in the course of time be carried out. We wish for a scheme which, as a repair and completion of ancient designs, we can defend against those anti-restorationists who would let ancient buildings crumble and fall rather than restore them, however tenderly, to the condition which their first builders designed for them. . . . I trust that it may not be long before St. Alban's is able to put on a distinctly cathedral character. Nothing will be grander than the restored choir. At present, looking above its temporary fittings, the structure, with its noble roofs of ancient decoration, is imposing in the extreme. I trust that the grand organ, now useless for the services, may be divided and arranged over each side of the ante-choir, so as to serve for choir and nave services. I trust also that a cathedral choir may be trained, provided, and paid to maintain, both on Sunday and week-days, that service for which our English cathedrals are so justly renowned. We want a real cathedral, with services of dignity and beauty, even if we have annually to ask the diocese to maintain them. We want a cathedral, the centre of its life and work,—not a mere parish church, however grand its dimensions, with a bishop's throne in it.

TREES IN KENSINGTON GARDENS.

The decayed condition of these noble and ancient forest glades, when contrasted with the forestry and the beautiful hortulan borders of the adjacent park, shows at once an utter neglect of public taste and feeling, as it regards the invaluable freedom of access to so extensive a scope of park and gardens, conjoined in an open expanse, and exceeding 800 acres. The sunken boundary of the ha-ha is unobtrusive and hardly perceptible; but the order and trim condition of Hyde Park, with its tasteful hortulan borders, its accurately cut edgings, and its noble growth of expansive foresters, at once demonstrates a careful superintendence; whilst the other, from the decaying palace to the park boundary, discloses only utter somnolence, waste, and neglect.

Originally there were three glades running from the Round Pond in a western, north-western, and south-western, direction; these, as laid out by Repton, still exist, and present beautiful, healthful, and effective openings from the old palace, which was founded on the western wall; but in the intervals, and upon all the open spaces of the whole area, stand foresters of nearly 200 years' growth, as at first planted; now of immense altitude, many of them bare poles, many dead at the top and rampiked, and nearly all in deadly conflict for freedom of "branchage."

When we examine the position and space left for each tree, we find 8 ft. and 10 ft. to be the ordinary interval; but in many instances these giant-trees stand at intervals of only 5 ft., 4 ft., or even 3 ft. apart! In very many cases the tops are dead and rampiked, but in most the stems grow up in nearly bare poles. How can it be otherwise when there is no space for lateral expansion? The branches interlace and conflict for freedom, which is, in fact, unattainable in a space so constricted.

It is now certainly too late to redress the evil of too close plantation, but still by cutting away damaged and deformed trees, room might be secured for lateral expansion of the survivors, and thus the aspect of a forest of masts would be less repulsive, whilst the woodland would be more agreeable for light and shade, and in a few seasons more naturally branched. Of the standing timber, a full fourth part might be cut down, which would amply repay expenses of improvements, and at the same time much benefit ramblers who, when frequenting the woods, are much incommoded by the pashy nature of the subsoil.

Is there no authority to inspect and rectify the defaults and growing decay of timber trees in Kensington-gardens? In Hyde Park there is a ranger, with a mansion and twenty acres inclosed; and that in the most valued centre; but there are also here various offices, repositories, stores, and cottages, together with a guardhouse, with an accumulated population, annually on the increase. Such is the freedom of open park and public liberties.

As this is the season for clearing off and cutting down timber trees, this notice of waste and decay *in extenso* throughout the foresters is given before they shed their last October leaves; and that remedial measures be taken is the hope of

T. H. H.

PLASTER OF PARIS.

Sir,—Can any of your readers inform us what mixture will dissolve or render soluble Plaster of Paris after it has once become set? Any information on the subject will be esteemed by

B. B. B.

AN ART GALLERY FOR WARRINGTON.

HONOURS TO A SCULPTOR.

On the 4th inst. a new art gallery, provided partly by subscription and partly by a grant from the funds of the borough, was opened with some ceremony at Warrington.

The gallery takes the form of an additional wing to the free museum and library, Lord Winmarleigh giving the site. Before the building was completed the Corporation were fortunate enough to secure several valuable gifts of art-treasures. The gallery is, we understand, mainly the outcome of a desire by the inhabitants of Warrington to do honour to their townsman, Mr. Warrington Wood, the sculptor, whose career is an instructive one. Mr. John Warrington Wood began life as a stonemason under his father, who for many years was a trustworthy official in the service of the Corporation. Young Mr. Wood, however, began in early life to show signs of artistic talent. He was fortunate enough to find kind and generous patrons. A few years ago, at the instigation of Lord Winmarleigh, a public movement was set on foot to recognise Mr. Wood's ability as a sculptor, and at the same time to commission him to execute a work of art which would reflect honour to the artist himself and also upon his native town. This was done, and at a cost of a thousand guineas, Mr. Wood has executed a colossal statue of "St. Michael overcoming Satan." The figure was cut from a block of Carrara marble, weighing fifteen tons, and, when sent to Warrington, it was found that no public building was sufficiently large in the town to receive the statue, and accordingly the art-gallery scheme, just consummated, was set on foot, and now the town possesses a building specially adapted to the reception of works of art.

The building has cost 3,000*l.*, of which 2,000*l.* have been publicly subscribed, the chief room being one of fine proportions, and somewhat similar in construction to the large room of the Walker Art Gallery at Liverpool. The principal object of attraction is, of course, Mr. Wood's "St. Michael overcoming Satan." St. Michael bears in his hand a flaming sword, and with the left hand holds the vanquished Satan, who crouches at the victor's feet. This is pronounced to be Mr. Wood's best work. His first work, an "Apollo Belvedere," which he presented to a friend, his "Sisters of Bethany" (executed for Mr. S. Rigby), his statue of "Elijah" (lent by Mr. W. Long), busts of local patrons, a finely-executed statue of "Rebecca," and other of his works, are exhibited. One of the first commissions was a bust of Mr. John Bright, M.P., which had been executed for Mr. John Crosfield, who intended it for presentation to President Lincoln, but the bust arrived in Liverpool from Rome the day the President was assassinated. Mr. Wood will shortly return to Rome, taking with him a number of commissions, amongst them being the statue of the Mayor of Liverpool, and busts of Sir Joseph Heron for the Manchester Townhall, Mr. Glazebrook Rylands, and Mr. Holbrook Gaskell, of Liverpool.

Another handsome gift to the Warrington Art Gallery has been the Robson collection. It consists chiefly of the works of the late Mr. Thomas Robson, a Warringtonian, together with several valuable pictures by the old masters. These are stated to include a veritable Titian, a Correggio, a Murillo, a Gainsborough, and a Reynolds. The whole has been renovated at a cost of 200*l.*, and presented to the gallery by Mr. Robson, of Lynn, the artist's brother.

The Cyfarthfa Ironworks.—A Merthyr workman having addressed a letter to Mr. Robert Crawshay upon a matter of business, took the opportunity of asking once more whether there was any hope of a resumption of activity at the vast ironworks at Cyfarthfa, and Mr. Crawshay has replied:—

"Trade is worse than ever it was, and I see not the slightest chance of Cyfarthfa starting again. I believe if ever it does start it will be under different circumstances to the present, as it will require a large sum to be laid out in improvements, such as making steel rails, &c. I am too near my grave to think of doing anything of the sort, and I think so badly of trade altogether that I have no wish to see my sons remain in it. I am feeling very poorly, and do not think I can possibly live very long, and if I am able I shall sell the works before I die. There is nothing now to bind me to them, for I have been estranged from them by the conduct of the men. I always hoped and expected to die with the works going, and the same feeling amongst the men for their employer; but things have changed, and all is different, and I go to my grave feeling I am a perfect stranger, as all my old men are gone, or nearly so."

CHIME CLOCK AND CARILLONS, MANCHESTER TOWN-HALL.

The great chime-clock and carillons for the Manchester Town-hall, which have been manufactured by Messrs. Gillett & Bland, of Croydon, are not yet fixed in the tower, owing to the delay in hanging the bells, as it was impossible to commence the work of fixing the machinery until all the bells were placed in position. The clock is constructed to strike the hours upon the great bell, of 7 tons, in the key of G, and to chime the four quarters on ten bells, the time to be shown upon the four illuminated dials of 16 ft. in diameter. The main frame is on the horizontal plan, of solid cast iron, 12 ft. long, 4 ft. 6 in. wide, and 4 ft. 2 in. high, and weighs 1¼ ton. All the wheels are of gun-metal, turned, cut, and polished. The main wheels of the striking and quarters are 2 ft. 6 in. diameter, and the main wheel of the going part is 2 ft. in diameter, all the rest of the wheels being in due proportion. The bosses in which the pivots run are also of gun-metal, screwed into the frames. There are engraved and silvered dials on the clock, showing hours, minutes, and seconds, for the purpose of regulating the outer hand and for taking observations. The pendulum is a compensated one, made of zinc and iron tubes to beat two seconds of time, with a cast-iron cylindrical bob of about 6 cwt., which is to be suspended from a cast-iron bracket fixed on a stone corbel built into the wall. The barrels are made of cast-iron, turned and grooved. From them will be suspended the weights, by patent steel lines, weighing over 2½ tons, which will drive the clock. The striking cams and levers are all hard-steel faced. The escapement is of the kind known as the "double three-legged gravity," which is said to be superior to all other kinds for perfect timekeeping. There is an automatic gas apparatus fitted to the clock for turning the gas up and down, and so contrived as to suit all seasons of the year, providing for long and short days, similar to a perpetual calendar, so that no attendance whatever will be required to turn the gas on and off, a considerable saving in time and gas being thus effected. Messrs. Gillett & Bland were the inventors of this apparatus, which they first applied to the Bradford Town-hall clock. The chime part of the clock is constructed on a new principle, so that the changes for the quarters can be altered at any time. Provision will be made for connecting the clock with the electric current for registering Greenwich mean time. The hour-bell G will be the largest struck upon by a clock in the United Kingdom, excepting the one at Westminster Palace, which was originally struck upon by a hammer of 8 cwt., until the bell was cracked, since when the hammer has been reduced to 4 cwt. As the hammer which will strike upon the Town-hall bell will be heavier than this, and as the quarter bells are also much heavier than those at Westminster, the hours and quarters will be heard at a much greater distance. The other two great bells in this country, at Oxford and York, are struck by hand, and not by the clock. The carillon machine, which is constructed on the makers' patented system, will play thirty-one tunes on twenty-one bells, weighing altogether about 32 tons, or double the weight of those at Worcester Cathedral and Bradford Town-hall.

MANUFACTURE OF IRON AND STEEL BY THE DIRECT PROCESS.

At the Newcastle meeting of the Iron and Steel Institute the other day, the president, Dr. Siemens, read "Some further remarks regarding the production of iron and steel by direct process." He said the practical objections to the direct process, as practised in former days, and as still used to a limited extent in the United States of America and in some European countries, were that:—1. Very rich ores only were applicable, of which about one-half was converted into iron, the remainder being lost in forming slag. 2. The fuel used in charcoal, of which between three and four tons were used in producing one ton of hammered blooms. 3. Expenditure of labour was great, being at the rate of thirty-three men, working twelve hours, in producing one ton of metal. Iron produced by direct process in the Catalon forge was therefore expensive iron, and could not compete with iron produced by modern processes except for special purposes, such as furnishing melting material for the tool-steel melter. But, it might be asked, could the advantages of the direct process not be combined with those of modern appliances for the production of pure and intense heats, and for dealing with materials in large masses, without expenditure of manual labour, and could not chemistry help us to larger yields and the faculty of using comparatively poor and impure ores? A careful consideration of these questions led him to the conclusion, some years ago, that here was a promising field for the experimental metallurgist, and that he possessed some advantage over others in the use of the regenerative gas furnace as a means of producing the requisite quality of heat without the use of charcoal and blowing apparatus. He engaged, accordingly, upon a series of experimental researches at his ample steel works, at Birmingham, and in 1873 he had the honour of submitting the first fruits of these inquiries to the Iron and Steel Institute, in a paper entitled "On the Manufacture of Iron and Steel by Direct Process." Encouraged by the results he had then obtained, he ventured with some others upon some larger applications, the principal one of which had been one at Towcester, in Northamptonshire. If viewed by the light of present experience, it would have been wiser to have fixed upon another locality with fuel, skilled labour, and better ores within easy reach; but in extenuation of the error committed, it might be urged that the site was fixed by force of circumstances rather than by selection, the chief temptation being an ample supply of small Northamptonshire ore at a very low cost. It was, however, soon discovered that this ore, although capable of producing iron of good quality, was too poor and irregular in quality to yield commercial results unless it was mixed with an equal weight of rich ore, such as Potery mine, Spanish ore, or Rolls cale, all of which, as well as the fuel, were expensive at Towcester, owing to high rates of carriage. It was in consequence of these untoward circumstances that the works at Towcester had not been completed by the addition of rolling-mills, the intention being to transfer the special machinery ultimately to existing ironworks when the process had been sufficiently matured for that purpose. The leading idea which guided him in these experiments was to operate upon such mixtures of ores, fluxes, and reducing agents as would, under the influence of intense heat, resolve themselves forthwith into metallic iron and a fluid cinder, differing essentially from the methods pursued by Chenat, Blair, and others, who prepared spongy metal in the first place by a slow process which was condensed into malleable iron or steel by after processes, but assimilating to some extent to the process first proposed by Mr. Wm. Clay.

THE HIGH-ART LOVER AND HIS ARTIST.

HENNING'S MODELS OF THE "ELGIN MARBLES."

Your readers must have been amused on reading Mr. J. Thomson's letter in your issue of the 6th inst., and his narrative of the angry artist's ebullition of temper on seeing his models laid down on the floor of the British Museum, as told by the aged custodian, who, I think, must have been a wag in his way, and invented a fable to amuse your correspondent.

Perhaps the following information may interest him, and prevent a most unlikely action of the talented sculptor from gaining currency.

Fully forty-five years ago I was on terms of intimacy with a young artist friend, now dead, and was very often in his father's house, who was a native of the same town as Henning (Paisley), and his friend from boyhood. He had a set of the friezes presented to him by Henning.

He told me,—and I have heard him repeat it frequently,—that Henning cut his models in *slate* during his leisure, for he was working as a stone-carver in London at the time.

This material gave him the opportunity of producing the sharpness of outline and delicacy of finish that give such a charm to his work, and that could not have been got had he modelled in *wax*.

I may further mention that they were published by subscription. I think the price was 15*l.* 15*s.*

My father-in-law,—the late M. A. Nicholson, architect, London,—was a subscriber, and his set is still in possession of his daughter, Mrs. Thomson, now widow of the late Alexander Thomson, Glasgow, known as "The Greek Thomson."

John Baird, F.R.I.B.A.

ARCHITECT'S CLAIM FOR PLANS.

STEWART *v.* NEWBURY.

This case was heard on the 29th ult. in the Brentford County Court. The plaintiff is of the firm of Stewart & Robinson, architects, Borough, Southwark, and he brought an action against the defendant, a gentleman residing in the Mall, Chiswick, for the sum of 26*l.* 16*s.* 6*d.* for professional services. The case had been sent down for trial from a superior Court (Exchequer Division).

Mr. J. E. Palmer (instructed by Mr. Durrant) appeared for the plaintiff, and Mr. Woodbridge for the defendant.

Defendant held the lease of some cottages at Chiswick, and, intending to pull them down and build large villas on the ground, he asked the plaintiffs to prepare some plans to submit to the landlord. It appeared that Mr. Stewart had been preparing plans for another gentleman, and at the defendant's request he brought these plans home with him one evening, and in the presence of Miss Chatter, his sister-in-law, he handed the plans over to the defendant, who showed them to his friends. In consequence of the defendant's landlord wanting an increased rental, he did not proceed with the proposed villas, and therefore contended that he did not require the plans. Plaintiff, however, stated that his services had been rendered, and the 2½ per cent. he had charged on the value of the buildings was a fair and reasonable charge according to the Institute of Architects. It appeared that the plaintiff was a tenant of the defendant, and that the latter put a distress into the house for rent.

Mr. Woodbridge contended that what the plaintiff had done for the defendant was done in a friendly way, and not to be charged for, and the plaintiff never would have charged the defendant anything for the plans had not the latter been compelled to put a distress into the plaintiff's house for rent.

The Judge found for the plaintiff, in the sum of 12*l.* 12*s.*, which sum he considered was due for the preparation of the plans.

CASES UNDER THE METROPOLITAN BUILDING ACT.

WHAT ARE REPAIRS?

Legg v. *Pritchard*.—At the Worship-street Police Court, before Mr. Hannay, Mr. Pritchard, builder, of Paul-street, Finsbury, was summoned by Mr. Legg, district surveyor for West Hackney, for not having given notice under section 38 of the Building Act. The defendant had been engaged in stripping and making good the defective slating, boarding, and battening, reusing the old slates, and making good the deficiency with new to the roof of a house in Stamford Hill, and had refused to give notice to the district surveyor on the ground that the works came within the exception as to repairs in Clause 9 of the Building Act.

Mr. Legg contended that the roof, having been stripped, and boarding substituted for battening, the defendant might have infringed the 19th section of the Act by covering it with some combustible material, and that, therefore, he was entitled to a notice of the intended work as an alteration.

Mr. Pritchard's solicitor contended that if the Act should be infringed in the covering of the roof, the builder would be liable to penalties under the Act, but that he was not bound to give notice of what was in reality a necessary repair, within the meaning of the exception in clause 9 of the Act.

After hearing the evidence for the surveyor, and without calling on the defendant for a reply, the magistrate dismissed the summons with costs.

TREATMENT OF BUILDERS.

I do not think any other class of tradesmen are bound, hands and feet, as it were, by so many restrictions and conditions in the execution of their calling as contractors and builders; as a rule, I believe, they bear the shackles thus imposed on them in a very quiet and philosophical manner, accepting them as a requirement held and wielded by a body of honourable gentlemen, who are therefore left entirely unfettered on their part in the several contracts. So far, then, all is well, but I wish to draw attention to an abuse which I think only requires ventilation in your widely-read columns to at once receive correction in future; or perhaps some of the numerous readers of the *Builder* may know an antidote for the evil, which certainly bears unjustly on the building trade. I will quote two cases by way of illustration. The first is in Yorkshire, where contracts are let to each separate trade, whereby a building is carried out by as many contractors as there are different trades in it. The unfortunate victim here is the joiner, who finds to his sorrow that there is a shortness of funds of the owners from some

cause; the architect, to shield his client, withheld details, and necessarily the joiner could not complete and get a settlement, the delay eventually compelling him to ask for time from his creditors, which was given. But such a case, I hold, should not occur; details should have been furnished, and the owners must have raised the money: all would then have been satisfactory. I grant many things may arise about a building that may increase the cost above what was originally intended, but I think it hardly right that innocent persons should suffer for others' want of foresight (if want of cash may be thus classed).

The other case is about 100 miles from London, the contractor there for a large building being treated with the same tactics. Details in this case for some trifling work in the contract, without which the building will not be complete, are withheld, although numerous applications by letter, and also personally at the architect's office, some thirty miles distant, have been made; thus the contractor cannot demand a certificate, neither can he claim his balance, nearly 1,000*l.*, nor charge interest thereon till it is paid I presume, so that his capital is thus unproductive, besides the injury inflicted. JUSTITIA.

DICTIONARY OF ARCHITECTURE.

THE subscribers have just now received a considerable instalment of the "Dictionary," including the letters M, N, and O, with title-pages, tables of contents, and so forth, for binding five volumes of the work, and three volumes of illustrations. We will give some particulars on another occasion of the portion of the work now published. Our present purpose is to mention briefly the opportunity now afforded to members of the profession and others to acquire the work.

The committee, having a few copies available, offer to new subscribers the whole of the text and illustrations of the Dictionary up to the letter P, as already issued to the present subscribers, and *the continuation as funds may permit*, as fast as it can be produced, for twenty guineas in one payment, or spread over a limited period, in instalments. There are only a few copies left, and the committee are pledged not at any time to allow the issue of copies at less than the original subscription price, so as to guarantee the subscribers against any depreciation in value. Mr. Arthur Cates, of 7, Whitehall-yard, kindly acts as Honorary Secretary.

THE MASONS' STRIKE.

SIR,—So much misunderstanding appears to prevail, on the part of architects and their clients as to the circumstances of this dispute, that I beg the favour of being allowed, through your columns, to repeat what no doubt to many of your readers will be rather stale. Several master builders have received letters from architects to the following effect:—"The masons are but a small body as compared to the building artisans, and it would be much better to accede to their demands than to stop so many important buildings." But in thus writing it seems to be forgotten that the masons made two demands, one for a reduction in the hours of labour, and another for a uniform rise of wages to 10d. per hour, instead of 9d. It is obvious, and indeed generally admitted, that these changes could not have been confined to masons, who of necessity must work the same hours as bricklayers, &c.; and it was distinctly avowed that, if the masons obtained a rise of wage, the carpenters were prepared immediately to strike for the same.

The question, therefore, before the masters was,—a general reduction in the hours of labour and an increase of 12½ per cent. in wages throughout the trade.

The Masons' Union sent a deputation to the master builders to talk over the matters in dispute, but the discussion turned very much on the rules and practices of the Masons' Union. The masters stated that there was a great difference in the skill and ability of masons, that many of them, if unrestricted by their own rules, could easily earn 10d., 11d., or even 1s. per hour, whilst other masons were so unskilful or idle that they were not worth half. What was the answer of the union men? "Our principle is that the strong must support the weak," or, in other words, that the skilful and intelligent man must eke out his time so as not to surpass the most unskilful and idle man on the same work. And this principle has for some time past been most assiduously carried out, so that the cost of masons' labour has been brought to such a pitch as to defy all calculation of the most experienced estimators. I need hardly say that if such foolish, arbitrary, and immoral principles were made a part of the law of the land, a revolution would ensue.

During the last few days symptoms appear to show that many masons are dissatisfied. Two or three men at a time have been taken on at various jobs, and it is stated that the strike fund is very much lowered, while the demands on the same are very much on the increase, and that within the next week or two the strike may be at an end. There are vast numbers of masons unemployed in America, and it is only a question of cost as to getting them over. The masters have also letters from different parts of Germany from piece-master masons, who offer to bring over men and execute the stonework by contract; and in one way or another the master builders hope to bring about a reform of a system of rules which they believe to be a disgrace to the intelligence of the age, and at the same time to defeat demands which they know to be only a beginning of demands for a still further reduction in the hours of labour and a much larger increase in wages than is now sought to be enforced.

A MASTER BUILDER.

PROFESSIONAL QUERIES.

ONE of your experienced readers would confer a favour on a young architect by replying to the following, viz.:—Is an architect expected, and is it a part of his duty, to attend committee meetings at any moment and as often as called upon to do so without making any extra charge, no stipulations having been made beforehand that he would be required to do so? What is customary in this respect? And in the event of additional plans being required for sanction of Board of Works to permit proposed or parts of proposed alterations, after builder has signed contract, ought not the architect to be paid extra for same, having supplied such by special request from employer, after having declined to do so when applied to by builder for same? Employer being one of the legal profession prepared his own contract, and both parties entered into same without consulting architect, and without his having seen the said contract. In this instance who ought to pay for the plans, builder or employer? Or is it the duty of the architect to supply any and every drawing necessary in such a case without extra charge? Employer now declines to pay the extra charge.

JUSTITIA.

*** Architect is entitled to be paid extra. If the builder has contracted to obtain sanction of the Board, he should pay for the plans supplied for that purpose. If not, the employer should pay for them. The answer to the first question, as to committee meetings, would depend on circumstances.

NEW WATERWORKS.

Raphoe.—New waterworks here have been completed by the contractor, Mr. Oliphant, of Castlefin, under the superintendence of Mr. Henry Morrow, C.E., Lifford, and are stated to have proved in every way a complete success.

Lossiemouth.—New waterworks for Lossiemouth, N.B., were opened on the 29th ult. A local paper says:—Branderburgh being built on a rock, it was difficult to find a supply of water for the people who choose to take up their residence in the new and thriving village. The want of a good supply of water operated greatly against the extension of the town, and, in order to provide a supply, Lady Dunbar Brander, of Pitygaveny, the proprietress, sank a well, at a cost of 500*l.*, about half a mile from Branderburgh, in a plain some 200 ft. below the place where the reservoir now stands. After the well was built, fears were entertained by some as to whether the supply would be sufficient to meet the demand, and also whether the quality would satisfy, as the well is somewhat below the sea level and within a mile of the tide. Eminent engineers were employed to examine the subject, and after careful analyses of the water by chemists, and the supply the well yielded, it was deemed satisfactory in both respects. In the Branderburgh waterworks the reservoir, which is capable of containing 60,000 gallons of water, is placed on the top of the Coulard Hill, where water was not to be had. The cost to the ratepayers will not exceed 2*s.* per pound on the rental. The three villages of Lossiemouth, Branderburgh, and Stotfield are now supplied, each lying at equal distances from the reservoir.

Barnsley.—The proposed extension of the waterworks at Barnsley is exciting great opposition among a section of the townspeople. At a public meeting, held on the 1st inst., Mr. Councillor Marshall moved,—

"That this meeting enters its protests against the schemes for the extension of the waterworks, and for the town's improvement, which if carried into effect, must largely increase the present high rates, and must have an injurious effect on every trade carried on in the borough. And, in the present depressed state of trade, an attempt to obtain an Act of Parliament would be an unjustifiable act on the ratepayers."

He said that, from the published accounts of the borough up to the end of 1876, it appeared that the cost of the old waterworks was 35,000*l.*, and of the works at Ingbirchworth 107,000*l.* Since then another 1,000*l.* had been expended, which raised the total to 143,000*l.*; but this was not all. During the construction of the Ingbirchworth works, money had to be borrowed, from which for several years there was no income. Then, in the earlier years, they did not pay 3 per cent., and it was only in the last year that they paid five. During the construction of the works, the income from the water did not pay anything like the interest on the money borrowed, and they were obliged to subsidise it out of the District Rate to the extent of 24,000*l.*, so that the real cost of the works stood at 167,000*l.* The resolution was carried.

COATED IRON PIPES FOR WATER.

SIR,—In your impression of October 6th you gave an account of the meeting of the Health Department of the Social Science Congress at Aberdeen, and I noticed that Mr. J. Brown, Q.C., remarked with reference to pipes for conveying water, "he did not see why iron should not be used instead of lead." Mr. Baldwin Latham said,—"As to the use of iron pipes for conveying the water, they were too easily corroded, and if they were to have pure water, they must have something more durable. The best substitute, but an expensive one, was lead pipes lined with tin."

About twenty-four or twenty-five years ago, I carried out, under Mr. Rawlinson, the sanitary works of a town in the north of England, including the supply of water. In all the house-services executed by the Local Board of Health galvanised iron pipes were used, and I find from inquiry the other day that these are still in good working order. The iron pipes were strongly objected to at the time, and some of the owners of property, who preferred to do the work themselves, used lead pipes. These lead pipes in a great number of instances, where laid below the surface of the ground, have since been found corroded, and have been replaced by galvanised iron pipes.

This would tend to prove that iron pipes, when properly coated, are more durable than lead, and they have also the advantage of not bursting in frosty weather, whilst lead pipes occasion great trouble from this cause, and from corrosion.

In a house I occupied in Wales some time ago, I found the lead pipes corroded both inside and outside to such an extent as to make them useless for conveying water. I took all the old lead pipes up (they weighed over three-quarters of a ton), and substituted iron pipes.

Some engineers are greatly prejudiced against the use of anything but lead for the house service-pipes; but it is open to discussion whether properly-prepared and coated iron or steel pipes could not be used with greater economy, durability, and less risk to health. There is also a difficulty in fixing and keeping the waterway full bore in such a pliable substance as lead.

The improvements in the manufacturing of iron and steel, and the methods of coating so as to make them almost indestructible, lead me to the conviction that at some future date lead will be superseded by coated iron or steel pipes. The question at issue is,—Cannot pure water be conveyed in coated iron pipes as well as in the coated lead ones alluded to by Mr. Latham? The supplying of pure water by pipes being of the greatest importance, perhaps some of your numerous correspondents may be able to throw more light on the subject.

H. U. MCKIE.

New Building in Liverpool.—On the 10th Lord Shaftesbury formally opened the new premises of the Liverpool Young Men's Christian Association, which have been erected, at a cost of about 21,000*l.*, in Mount Pleasant, the street poetically lauded by Roscoe. The memorial stone was laid on the 2nd of March, 1875, by Mr. D. L. Moody, the Chicago revivalist. It was then estimated that the building would cost 16,500*l.*, towards which 9,000*l.* were in hand or promised. Thus the expense has exceeded the estimate by about 4,000*l.* or 5,000*l.*

CHURCH-BUILDING NEWS.

Bolton-upon-Swale. — For some time past various alterations, by way of modernising the chancel of the church of Bolton-upon-Swale, have been going on; and now they are being brought to a close. First, a chamber was made to receive the new organ. Then the flooring of the chancel has been raised, and laid with Minton's tiles, from a design of the architect, Mr. W. E. Nesfield. New and richly-carved seats for the choir have supplanted the former sittings; and an entirely new window, with rich tracery, has been put in. The subjects chosen represent "The Three Marys"—the birth, and some of the scenes in the life of the Saviour in which their love to Him was most conspicuously shown; the centre figure being that of the Crucifixion. The window contains three lights, and was supplied by Messrs. Heaton, Butler, & Bayne.

Sowerby Bridge. — Since the alteration and enlargement of Sowerby Bridge Church, it has presented an incongruous appearance, the nave having been handsomely decorated, while the chancel had bare walls. The chancel has now been decorated by Mr. Jonas Binns, of King Cross. Mr. Binns has finished the mural painting on the south wall of the chancel, representing the Lord's Supper. The following is a general description of the decorations:—The ground-work of the chancel-roof is painted a pale blue, with borders of light grey, the foliage between the borders being picked out in crimson, light brown and gold. The walls from the roof to the bottom of the windows are painted a warm drab, divided by rich borders in chocolate, lavender, crimson, pale buff, and gold. The spaces between the borders are filled in with stencilled diaper work, in chocolate and gold. On the south wall, between the windows, is painted in monotone the subject of the Lord's Supper. The stonework in the windows and the organ arch is left its natural colour, the crowns of the carved heads being picked out with gold.

Feniton.—Feniton Church, dedicated to St. Andrew, and built in the fifteenth century, is about to be restored; indeed, the work of renovation has already begun. Plans were prepared by Mr. R. Medley Fulford, architect, Exeter, some little time ago; and funds are being raised for carrying on the work. This embraces the removal of the unsightly gallery and pen-like pews, the insertion of new east and other windows, and the addition of a new vestry. Feniton Church is celebrated for its rich par-close and rood screens, and these are to be carefully restored and put back in the original positions, from which they were removed fully forty years ago. Many of the ancient bench-ends,—fine examples of Perpendicular Gothic carving,—are still preserved. There will also be new altar-stalls, pulpit, lectern, tower-screen, and stalls for the chancel, all of carved oak. The works throughout are being executed by Mr. Harry Hems, of Exeter, under the immediate supervision of the architect.

Simonburn.—The parish church of Simonburn, Northumberland, was reopened on the 12th ult., after restoration. The church is thought to date from about 1230, and has the special feature of many Northumbrian churches,—Mitford, Rothbury, Holy Island, and Hartburn, among others,—of a very long chancel, enriched by a priest's door and leper windows of elaborate workmanship, and a curious double piscina, in good preservation. The nave contains various monumental effigies of Cuthbert Ridley (rector 1604–1636) and his family, which have been carefully cleansed and replaced; and also a beautiful white marble monument, by Noble, erected by their children in memory of the late Mr. and Mrs. Allgood, of Nunwick and the Hermitage. The idea has been carried out, during the restoration, of replacing, as far as possible, each part in accordance with the architecture of the period of its erection. The church is seated throughout (with the exception of the west end, which, for the present, will be provided with chairs) with comfortable seats of oak, having in front two rows of stalls, while accommodation for the clergy and choir has been provided in the west end of the chancel. The restoration has been carried out under the superintendence of Mr. R. J. Johnson, Newcastle. The builder's work was contracted for by Mr. W. Wilson, Gilsland. The hot-water heating apparatus has been supplied by Messrs. Dinning & Cooke, Newcastle; the roof and joiner work by Messrs. Hedley, Stamfordham; slaters' and plumbers' work by Mr. Isaac Baty, Barrasford; and the seating and internal fittings by Messrs. Robson & Son, Durham. The total cost of the work will be upwards of 2,700*l.*, exclusive of many special gifts. Amongst these may be mentioned three stained-glass windows, designed and executed by Mr. Kemp, of London. The east chancel window has its centre lights filled by the Crucifixion, with angels at the head and foot of the cross; while in the side lights are portrayed the Virgin and St. John. The centre light represents the Saviour pointing upwards, and bearing a charged banner, emblematic of His crucifixion and triumph over death; while on one side is the figure of the Angel Raphael, leading by the hand a little child; and on the other Michael triumphing over the dragon. The altar-rails, made by Messrs. Longfield, Sheffield, are of brass, designed by Mr. Johnson from ancient Norwegian brass altar candlesticks in the possession of Miss Allgood. The font, which rests on four Cornish serpentine columns, is the gift of Miss Ridley, and is the work of Mr. James Forsyth, London; and the encaustic tiling is by Messrs. Minton & Co.

Minehead.—The foundation stone of a new church at Minehead, Somerset, has been laid. The building is intended to serve the purpose of a chapel of ease for the lower parts of the town. The new church will be built in a central position, in Wellington-square, and will consist of a nave, two aisles, a chancel, a vestry with an organ-loft over it, and a bell-turret with two bells. The style will be Decorated, and it is calculated that there will be accommodation for 324 worshippers. The stone to be used will be sandstone, from the Alcombe quarries, with Doulting stone dressings. The total cost will approach 4,000*l.* The architect is Mr. G. E. Street, R.A., and the builder Mr. John Pearse, of Minehead, the works being under the direction of Mr. C. H. Samson, of Dunster.

Miscellanea.

A Staunch Bricklayer.—Bricking up that portion of the King Pit, Pemberton, near Wigan, the scene of the recent terrible and fatal explosion, was a work of difficulty. It was done by one bricklayer at a time, he having with him two assistants, in case any of them should be struck by foul air. The bricklayer wore a respirator, and was consequently enabled to stay in some ten or fifteen minutes, but the other workmen had to be relieved every few minutes, it being impossible for them to remain longer in the vitiated atmosphere. The rest of the party stood in the fresh-air road, some hundred yards away, and these relieved their companions, and rendered aid when necessary. Gradually the number of them available for the work grew less, the stifling air overpowering them, and the party was reduced to some half-dozen. Finding their staff so low, Mr. Hedley and one of the men went into the place to assist the bricklayers. On Mr. Hedley's return, Mr. Hilton, of the Wigan Coal and Iron Company, proceeded with a man to the spot. The bricklayer working there was evidently greatly exhausted, but he refused to leave his post. There was only one trowel in use, but this did not prevent the pushing forward of the work, by the adoption of a suggestion of Mr. Hilton's, that hands should take the place of trowels. Immediately that the last brick was put in the bricklayer fell down exhausted. Mr. Hilton endeavoured to assist him out of the place, but he was also struck, and called for help. This was speedily rendered, and the sufferers were removed to the fresh air, where they soon recovered. The name of that staunch workman ought to be known.

New Barracks at Richmond and Beverley. For some time past new barracks have been in course of construction at Beverley and Richmond, and are nearly completed. The barracks are intended for brigade depôts, and besides supplying increased military accommodation in the East and North Ridings will benefit Beverley and Richmond to a considerable extent, as about 300 men will be thus brought into each neighbourhood. The barracks were planned, and have been carried out, by the Royal Engineers, under the supervision of Col. Graham, York. The barracks at Beverley have been erected at a cost of 52,000*l.*, and those at Richmond at a cost of 50,000*l.*, these sums not including the purchase of the land. Mr. W. Barritt, of Hull, is the contractor of the former, and Messrs. Parnell, of Rugby, of the latter.

Examination Schools in Oxford. — The increased requirements of the University and the growth of the Bodleian Library having necessitated a new suite of buildings for examination purposes, it was resolved a few years since that new schools should be built, and the University purchased a site in the High-street, then occupied by the Angel Hotel, extending backwards to Merton-street and eastward to King-street. Plans were chosen by two successive delegacies, but afterwards rejected by Convocation. A third delegacy was appointed in 1875, which invited Messrs. Bodley & Garner, Mr. Champneys, Mr. Deane, Mr. Jackson, and Mr. J. O. Scott to prepare designs; each competitor was to receive 100 guineas, and the plans were to be estimated by a surveyor. The design chosen was that of Mr. T. G. Jackson, and this time the consent of Convocation was obtained to the plan selected. The building is now in progress, the past year having been spent in putting in the foundation. The plan consists of a quadrangle standing back from the High-street, surrounded with the examination buildings, or "Schools" on three sides, and open on the fourth side towards the east. Between the quadrangle and the High-street a block of buildings is interposed, containing a large hall, the offices of the Clerk of the Schools, some rooms for examiners, and residence for a porter. Nine *vivâ-voce* schools, with retiring-rooms for examiners, occupy the whole ground-floor round the quadrangle, from which all but one of them are lighted. The three large writing-schools and two *vivâ-voce* schools occupy the first floor, and are lighted by both sides. The three great writing-schools accommodate 200, 200, and 120 candidates respectively, seated at separate tables, and the area is so great as to make supervision by the examiners difficult. To facilitate this the two larger rooms are broken into the shape of an "L" and a "T," and the examiner is placed at the junction of the arms of the figure. The great hall towards high-street forms a general vestibule, but there are also entrances in Merton-street and King-street. The great hall, with two subsidiary halls, form covered waiting spaces for candidates, for which purpose also the quadrangle in fine weather would be available. The whole building will be warmed and ventilated on Messrs. Haden's principle. The builder is Mr. A. Estcourt, of Gloucester.

Working Classes in New York.—The *New York Tribune*, of the 13th ult., in an article headed "The Town in September," says:—

"Our people are gathering home for the fall work in a more serious mood than usual. There is a deep-rooted feeling that worse dangers than lack of money are close at hand. Well-to-do church-going people are roused to the existence of a class who are not beggars and yet declare themselves to be starving. They perceive, for the first time, too, the existence of certain beliefs in this class which sermons and Sunday schools do not reach. Orderly folk, who have been used to think of Communism and bloody-minded Jacquas as belonging altogether to the other side of the water, are unduly astonished at their appearance in Pittsburg and Cincinnati. The fact is, there is no need of alarm, simply because the American working man, though in a hard strait, is neither a Frenchman nor a German. He does not trouble himself much with vague theories of human equality. He is in a hard strait because, when economy became necessary two years ago, his was the only class which refused to economise. Millionnaires retrenched; the clerk whose income was $1,000 brought down his expenses to $700; but the labourer who earned from $400 to $600 per annum, spent every penny of it. It is a fact, well known to everybody who has had dealings with the ignorant grade of labourers, that they are more extravagant in proportion to their means than any other class. As a rule, John who digs, when he has a dollar in his pocket, buys as choice a cut of meat with it as the man who pays him for digging. Before the war he lived on $1 a day. The coarser grades of flour and meat, which he ate then, are the same price now. Men of more culture than he are learning to do without things of far higher value to them than food. John will learn the same lesson this fall."

Sir Paul Pindar's House in Bishopsgate-street.—"A. M." writes,—"Many of your readers will be interested to learn that the houses, Nos. 170 and 171, Bishopsgate-street, which I believe there is no doubt were formerly part of Sir Paul Pindar's house, are about to be demolished, the sale of the materials being advertised for the 19th inst. Sir Paul's house was built towards the end of Elizabeth's reign in a style of unusual magnificence. The quaint front of the public-house which still bears his name is familiar to most Londoners, but it is not so generally known that the two adjoining houses I have mentioned contain ceilings of the greatest beauty. The attention of the authorities at South Kensington has been directed to these most interesting relics, and it is understood that the Metropolitan Free Hospital, to whom the houses belong, will present one or more of the ceilings to the museum."

Destruction of a Lighthouse.—Works for India are unlucky, or badly done. The *Times* Rangoon correspondent gives an account of the disappearance of the Krishna Shoal Lighthouse with seven occupants! The lighthouse was of iron, manufactured by George Wells, of London, and cost, when put up and complete, about 16,000*l*. It was erected in September, 1869, and the light itself was of a second order, showing a light of 225 degrees with a dioptric mirror for 135 degrees. The house itself was built on thirteen screw piles, twelve of which were 7 in. and the centre one 8 in. in diameter, and these were well supported and secured by lateral iron bracings. The piles had been screwed into the hard sand to the depth of 24 ft., and the height from the sand to the ridge of the dwelling-house was 80 ft. Then rose the lantern above at the height of from 20 ft. to 30 ft. Seven natives of India were appointed to look after the light, and they were relieved by another gang once in three months. No boat was allowed to the lighthouse, and, therefore, the keepers had no means of escape. Disasters never seem to come singly, for news has arrived that the embankments, on which lacs of rupees have been expended, for the purpose of keeping the water of the Irrawaddy from the valleys lying between that river and the hills have been broken in fourteen places, and that thousands of acres planted with paddy for the rice crop of the ensuing season have been submerged.

Building Frauds on the Midland Railway. At the County Police-court, Carlisle, on the 12th inst., Edwin Westerman, superintendent of the Settle and Carlisle Railway; Thomas Errick, inspector of the Carlisle and Newbiggen subsection of the same railway; John Lambert, stationmaster at Cumwhinton; and G. M. Tickle, brickmaster and contractor, Maryport, were charged with stealing bricks, timber, and other stores, the property of the Midland Railway Company. The first charge was against Tickle, Westerman, and Errick, of stealing about 50,000 bricks, eighteen wheelbarrows, and a quantity of wooden staging. Tickle, who is a brick manufacturer residing at Maryport, held under a lease from the Midland Railway Company a brick-field at Cumwhinton. The company having found it necessary to line with bricks a tunnel at Barrow Wood, a few miles south of Cumwhinton, sent out orders to various brickmakers to deliver bricks at that place. These bricks were delivered at Armathwaite Station for Barrow Wood; and the first charge against the three prisoners, Tickle, Errick, and Westerman, was that some 50,000 of these bricks had been removed from Armathwaite Station with the connivance of Westerman and Errick, and taken to Howes siding at Cumwhinton, and deposited in Tickle's brick-yard, and used there for building brick-kilns and other buildings.

The Hovels of West Cheshire.—The condition of some portions of West Cheshire is thus described by Mr. J. A. Davenport, inspector, in his report to the Nantwich Rural Sanitary Authority, which met on the 29th ult., at Nantwich Workhouse:—

"Dr. Fraser (the medical officer) and I have spent a day in the township of Burwardsley. At one cottage we visited, the roof was precisely like a riddle, and the spars were mildewed and rotting. A more miserable place for any one to live in could hardly be imagined, the roof from the inside having the appearance of a chessboard, the slates forming the dark squares, and the holes the light ones. Foul pits and nuisances abound at all the houses, and the roofs of many are bad, though none quite equal to the one referred to."

It appeared that the property owners concerned had made some very indefinite promises of amendment, and these Mr. Davenport was to see were put into practice.

Tiles.—The Art Exhibition held in Croydon last week in connexion with the Church Congress, was visited by large numbers of people. Most of the leading art-metal firms and church furnishers had their productions on view, and Messrs. Chubb & Son, who have opened their St. Paul's-churchyard premises for the sale of a special class of work, exhibited, in addition to specimens of ornamental brass and iron work, some cartoons executed in tiles. The subjects were copies of the prints issued by the Wesleyan Sunday School Union illustrating the life of Christ, and they attracted much attention.

"Cutting off the Gas too Soon."—*Blake* v. *London Gas Light Company.*—With reference to our short report of this above cause, the plaintiff sends us a communication "to show the company had no right to cut it off *at all*." We cannot, however, find space for it.

Cremorne.—Cremorne Gardens, as a place of entertainment, will, it is authoritatively announced, exist no longer. Dr. J. L. Hamilton writes suggesting that the site should be utilised for the re-building of one of our London hospitals. He says,—"Cremorne Gardens, with the adjoining estate of Ashburnham, cover about 18 acres of land, admirably suited for a general hospital and its medical school. Save, perhaps, St. Thomas's Hospital, any of the other metropolitan hospitals would gain greatly by removal to so fortunate a situation. Thus, St. Barthlomew's, Guy's, King's College, Charing-cross, Middlesex, &c., is each surrounded in a sea of buildings. Any one of these hospitals could, if deemed necessary, retain its present out-patient department, with a few beds for grave accidents, whilst the remainder of its buildings and land, if sold, would probably more than cover the cost of removal to this oasis in Chelsea, that has a densely-populated poor district, notably distant from any general hospital."

Manchester Architectural Society.—The annual *conversazione* of the Manchester Architectural Association was held on the 9th inst. in the Memorial Hall, Albert-square. In the unavoidable absence of the president (Mr. F. H. Oldham) Mr. J. Corbett occupied the chair. The annual report of the society showed that twelve new members had joined during the past session, and that the total number now was sixty-five. The financial report stated that the total income, including 24*l*. from last session, was 60*l*. 10*s*., the total expenditure being 57*l*. 11*s*. The chairman opened the proceedings with a short speech, in the course of which he said the society was formed for the purpose of giving instruction to the younger members of the profession. He gave a brief sketch of the work of the society during the past session.

New Cemetery near Bath.—The new cemetery which has been provided for the parish of Weston, near Bath, was consecrated on the 25th ult. It is 2a. 2r. 27p. in extent, and adjoins, upon the north side, the Lockabrook Cemetery. The land was purchased for 1,440*l*., but the expense of building a wall, laying out, and other necessary costs, will bring up the total to something over 2,000*l*. An arrangement has been effected with the representatives of the parishes of Walcot and St. Saviour's, for the use of the present chapels for all interments from Weston, thus saving to the latter place the cost of providing extra chapels. One-seventh of the entire ground is appropriated for the burial of Dissenters. The ground was laid out from the designs of Mr. C. R. Davis, architect, Bath.

Fire at Inverary Castle.—Inverary Castle, the seat of the Duke of Argyll, was on the night of the 12th inst. in a great measure destroyed by fire, which broke out in the central tower. The castle was insured for 106,000*l*., of which 80,000*l*. applies to the building alone and the balance to the movables. The cost of restoration is variously estimated at from 15,000*l*. to 20,000*l*. As to the origin of the fire, the Duke of Argyll says he is convinced that it was caused by lightning.

Public Baths and Offices at Sowerby Bridge.—On the 3rd inst., after an inquiry held at the Sowerby Bridge town-hall, Mr. Arnold Taylor said he saw no objection to the application of the Sowerby Bridge Local Board for permission to borrow 5,000*l*. for the erection of public baths, and 2,000*l*. for providing offices for the transaction of the business of the Board.

The Late Mr. William Railton.—We regret to see the announcement of the death, on the 13th inst., at No. 140, Marine-parade, Brighton, of Mr. William Railton, of Onslow-square, South Kensington. He will be best remembered by our professional readers as the architect of the Nelson Column, Trafalgar-square.

Freemasons' Tavern, Great Queen-street, W.C.—The lease of these extensive premises has been purchased by Mr. Alfred Best, who is expending a large sum in the alterations, ventilation, and redecoration, the whole of which is being carried out under the supervision of Mr. John Pugh, surveyor.

Destruction of Property.—A heavy gale swept over the country on Monday last, and destroyed a large amount of property in many places. Many thousands of yards of walling have been blown down, roofs blown off, spires and chimney-stacks destroyed. The daily papers give long lists of the disasters.

The Wigan Free Library.—On Tuesday the Wigan Free Library, erected by Mr. Thomas Taylor, cotton-spinner, from designs by Mr. A. Waterhouse, was presented to the town by Mr. Taylor. A procession was formed, and walked to the Free Library, where the opening ceremony took place.

TENDERS.

For new schools for 500 children, and master's house, &c., at Benfieldside, for Benfieldside School Board, county Durham. Messrs. John Smith & Son, Snotley Bridge, architects. Quantities by Mr. G. D. Irwin:—

Stephenson	£6,126 0 0
Glaister	5,944 7 0
Elliott	5,776 5 0
Middlemiss, Bros.	5,406 5 0
Bell	5,242 11 6
Snowdon & Son	5,233 0 0
Armstrong	5,195 5 5
M'Adam	5,058 11 0
Knox	4,975 18 0
G. Westgarth	4,790 4 0
W. Westgarth	4,718 18 8
Ettringham	4,718 10 5
Shell	4,495 10 0

For stabling for fifty-four horses, coach-house, dwellings, &c., Nottingham. Mr. S. Dutton Walker, architect:—

Measom	£3,109 0 0
Fish & Son	2,999 10 0
Hodson & Facon	2,995 0 0
Vickers	2,940 0 0
Wheatley & Maule	2,930 0 0
Bell & Son	2,897 0 0
Hind	2,891 0 0
Jelley	2,885 0 0
Woolf	2,875 0 0
Stevenson	2,870 0 0
Scott	2,847 0 0
Clarke	2,822 0 0
Daubeny	2,817 0 0
Doughty	2,800 0 0
Bailey (accepted)	2,765 0 0

For building four cottages, Helmsley-road, for Mr. Bett. Mr. C. S. Peters, architect:—

Bartram	£820 0 0
Stamp & Bowtle	803 0 0
Barmer	787 10 0
Judd & Hawkings	785 0 0
Weston	720 0 0
Thomason	696 0 0
Beale	679 0 0
Palmer	600 0 0
Walker	576 16 0

For erection of house and stable at Bromley, Kent, for Mr. A. T. Ellis. Mr. Wm. C. Banks, architect. Quantities by Mr. C. Stanger:—

Croaker	£3,108 0 0
Faulkner	2,896 0 0
Downs & Co.	2,895 0 0
Hart	2,787 0 0
Rider & Son	2,758 0 0
Nightingale	2,683 0 0
Cooke & Humphrey	2,650 0 0
Sharman	2,540 0 0
Sheffield & Prebble	2,533 0 0
Marriage	2,450 0 0
Cross (accepted)	2,393 0 0

For 400 ft. in length of iron roofing, covering retort-house and coal-store, and two high-service water-tanks, for the Tunbridge Wells Gas Company. Mr. R. P. Spice, architect:—

Abbott & Co.	£5,100 0 0
Horsley Iron Co.	5,000 0 0
Cutler & Sons	4,499 0 0
St. Pancras Iron Co.	4,452 0 0
Cooksey & Son	4,400 0 0
Head, Wrighton, & Co.*	3,900 0 0

* Accepted.

For the erection of a pavilion, for the Gun Club, Notting-hill. Mr. Walter Emden, architect:—

Foulson	£1,152 0 0
Whiteley	1,047 0 0
Lascelles	910 0 0
Downs & Co.*	745 0 0
Johnson	697 0 0

* Accepted with revision.

For river walling at Kingston-on-Thames, for Mr. Robert Horne. Mr. James Bateman, engineer:—

Phillips, Graves, & Co.	£186 10 0
Voss (accepted)	169 0 0

For additions to the rectory, Long Melford, Suffolk, second portion, for the Rev. C. J. Martyn. Messrs. Spalding & Knight, architects. Mr. G. Helwood, surveyor:—

Grimwood & Sons (accepted)	£2,550 0 0

For the erection of the Lime-street School, Hull, for the Kingston-upon-Hull School Board. Messrs. W. Botterill & Son, architects. Quantities supplied:—

	Including old buildings.	Excluding old buildings.
Sergeant	8,050 0	8,250 0
Skinner	8,025 0	8,225 0
Drury & Harper	7,893 0	8,026 0
Habbershaw & Son	7,778 0	7,905 0
Brown	7,715 0	7,832 0
Barry	7,670 0	7,850 0
Stamp	7,650 0	7,855 0
Hockney & Liggins	7,518 17	7,868 17
Jackson & Son*	£7,360 0	£7,530 0

* Accepted.

For repairing and dividing into two compartments the large water-tank, and supplying and fixing connexions and valves thereto, Shoreditch Workhouse. Mr. J. Wallace Pegge, engineer:—

Ellis	£395 0 0
Jeakes & Co.	512 0 0
Pontifex & Wood (accepted)	350 0 0

For fire brigade station at Stratford, for the West Ham Local Board. Mr. Lewis Angell, architect:—

Rivett	£576	0	0
Charlton & Mansell	560	0	0
North, Bros.	550	0	0
Norton & Sons	417	0	0
Sheffield & Prebble	375	0	0
Hart	325	0	0
Judd & Hawkings (accepted)	287	0	0

For fire brigade station, Canning Town, for the West Ham Local Board. Mr. Lewis Angell, architect. Quantities supplied by Messrs. R. L. Curtis & Sons:—

Charlton & Mansell	£1,145	0	0
Rivett	1,139	0	0
North, Bros.	1,120	0	0
Atherton & Latta	1,115	0	0
Abraham	1,093	0	0
Boyd	1,050	0	0
Wood	1,039	0	0
Hart	985	0	0
Judd & Hawkings	899	0	0
Sheffield & Prebble	883	0	0
Horlock (accepted)	850	0	0

For engineer's residence at the Sewage Pumping Works, Canning Town, for the West Ham Local Board. Mr. Lewis Angell, architect. Quantities by Messrs. R. L. Curtis & Sons:—

Boyd	£1,565	0	0
Wood	1,494	0	0
Atherton & Latta	1,460	0	0
Abrahams	1,434	0	0
Horlock	1,424	13	0
Charlton & Mansell	1,375	0	0
Rivett	1,367	0	0
Hart	1,362	0	0
North, Bros.	1,350	0	0
Sheffield & Prebble	1,318	0	0
Judd & Hawkings	1,299	0	0

For alterations at the Queen's Head, Commercial-street, Spitalfields, for Mr. J. S. Cakebread. Mr. Edward Brown, architect:—

Eaton	£948	0	0
Outhwaite & Son	885	0	0
Kiddell & Son	883	0	0
Auley	859	0	0
Marr (accepted)	831	0	0
Pewterer's Work.			
Warne (accepted)	£103	0	0
Paddon	88	13	0
Gasfitter's Work.			
Winn	£48	0	0
Christian (accepted)	40	13	0
Steadman	40	0	0

For new offices and galleries, for the Art Union of London, Strand. Mr. Edward M. Barry, architect:—

Poole & Sons	£16,820	0	0
Holland & Hannen	15,087	0	0
Shaw	14,550	0	0
Trollope & Sons	13,990	0	0
Brass	13,975	0	0
Smith & Co.	13,800	0	0
Downs	13,560	0	0
Perry & Co.	13,161	0	0

[The lowest amount exceeding the intended expenditure, no decision was come to.]

For the erection of three houses on the Plumstead Park Estate. Mr. W. Seckham-Witherington, architect:—

Coombs (accepted)	£825	0	0

For alterations at the Seven Stars, Fulham, for Messrs. Fuller, Smith, & Turner. Mr. W. Nunn, architect:—

Lucas	£279	0	0
Lamble	248	0	0
Henning & Son	217	0	0
Mansell	190	0	0

For repairs, &c., at the Plough, Little Ealing, for Messrs. Fuller, Smith, & Turner. Mr. W. Nunn, architect:—

Spicer	£203	0	0
Henning & Son	189	0	0
Nye	185	0	0
Lamble (accepted)	167	0	0

For building estate offices on the Poplars Estate, Shepherd's Bush. Mr. W. Nunn, architect:—

Lamble (accepted)	£360	0	0

For the erection of twenty houses on the Chiswick Glebe Estate. Mr. Frank. Beeston, architect:—

Downs & Co. (accepted).

For bar fittings at the Red Lion, Lower Deptford, for Mr. Wilton. Mr. H. W. Budd, architect:—

Lamble (accepted)	£190	0	0

For St. Paul's Church, Bow. Messrs. Newman & Billing, architects:—

Forrest	£9,258	0	0
Colls & Son	9,248	0	0
Bangs & Co.	8,873	0	0
Dove, Bros.	8,635	0	0
Perry & Co.	8,478	0	0
F. & F. J. Wood (accepted)	8,470	0	0

For alterations at house, Weybridge Common, Surrey. Mr. John Jeffkins, architect:—

Lee	£1,900	0	0
Brown	1,827	0	0

For engines, boilers, and pumps, for New Windsor Sewerage:—

Pontifex & Wood (accepted)	£2,989	15	0

For wrought and cast-iron tanks, for new Imbecile Asylum at Darenth, near Dartford:—

Pontifex & Wood (accepted)	£698	0	0

For pumping engines and boilers for Winchester Sewerage:—

Powis & Co.	£6,650	0	0
Day, Summers, & Co.	6,100	0	0
Hawthorn & Co.	6,000	0	0
Dale	5,390	0	0
Butterley Co.	4,760	0	0
Pontifex & Wood	4,384	0	0
Bowling Co.	3,708	0	0
Stott & Co.	3,650	0	0
Gimson	3,488	0	0

For sinking well and pumps for the Uxbridge Union:—

Tilley	£1,490	0	0
Beasley	1,175	0	0
Baker	1,100	0	0
Kearley	785	0	0
Pontifex & Wood (accepted)	649	0	0
Gibson (withdrawn)	530	0	0

For building a mission-hall in Morning-lane, Hackney. Messrs. Parr & Strong, architects:—

Hanley	£685	0	0
Bays, Bros., & Allen	656	0	0
Shurmer (accepted)	639	0	0

For the erection of a gardener's residence on the Horton Estate, near Epsom, Surrey. Mr. Hatchard Smith, architect:—

Chutes, Bros.	£354	0	0
Jeal (accepted)	345	0	0
Laundry.			
Jeal (accepted)	200	0	0

For alterations and repairs at the Fountain public-house, Lower Sloane-street, Chelsea. Messrs. Drury & Lovejoy, architects:—

Shurmur (accepted)	£337	0	0

TO CORRESPONDENTS.

"Peerage Property" (a large number of communications on this subject shall have consideration next week).—Labour and Wealth (several communications on this subject, also, await consideration).—P. & W. (we cannot insert tenders two months old).—Inquirer (an examination of persons proposing to be candidates for surveyorships is held by the Institute of Architects).—T. S.—R. C. P.—R. H.—J. H. S.—D. & Co.—T. R. S.—J. A.—Jack Plane.—Smudge.—J. E. C.—H. F.—Mon.—Vandals.—E. G.—F. M.—W. G.—B. F.—R. S.—S. S. R.—K. & Co.—G. B.—G. T.—J. C.—A.—L. P.—P.—C. R.—Mrs. V.—B. & Son.—S. B. & Co.—Dr. R.—F. D.—J. P.—J. A.—J. M.—C. B.—K. & R.—J. B.—E. D.—W. S. W.—Messrs. F.—T. B.—W. S.—Messrs. P.—C. A. (no).—S. F. C. (thanks).—F. & Co. (next week).

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